NATIONAL PETROLEUM NEWS

Vol. XIX Cleveland, Ohio, February 2, 1927 No. 5

Opposition General to Marland Bill, Now Before Okla. Legislature

TULSA, Feb. 1

E. W. MARLAND, president of the Marland Oil Co., as previously widely heralded, has introduced into both houses of the Oklahoma legislature his bill to conserve natural gas, and to provide a means for holding back oil production in flush pools, by forcing operators to hold back-pressures on their wells. This was on Jan. 26.

The bill was introduced with only minor modifications from the original draft which has been under public discussion for two weeks or so.

It was launched on the legislative current independent of any oil association backing, and sponsored only by representatives of Mr. Marland. No attempt is to be made to rush the bill to a vote, Mr. Marland having stated it was to be introduced more as a target to catch discussion and opinion on the subject of the benefit of legislation forcing operators to hold the gas in the sand in oil pools.

ON Jan. 28 the executive committee of the Oklahoma-Kansas division of the Mid-Continent Oil & Gas Assoc. held an open meeting to discuss the bill. The meeting had been arranged before the bill was introduced. Representatives of Mr. Marland were present. The firing was brisk from both sides.

The meeting resulted in the adoption of a resolution opposing any legislation of this or similar character before giving oil operators in Oklahoma time for analysis of the effect of such a bill on their own properties. The oil and gas committees of both houses, to which the bill will be referred, following the ordinary procedure, was asked to defer action until oil producers can be heard and to arrange a date for producers to be heard on the bill.

The resolution, introduced by W. N. Davis, vice-president of Phillips Petroleum Co., Bartlesville, Okla., president of the general Mid-Continent Oil & Gas Assoc., also called for appointment of a committee of 15 oil men to study the bill, and to hold open meetings, if necessary, to secure the views of oil producers.

On Jan. 29 the Okmulgee District Oil & Gas Assoc., an organization of producers at Okmulgee, Okla., took a vote postponed after discussion the week previous, and expressed unqualified disapproval of the bill and appointed a committee to enter the association's protest with the oil and gas committees of the legislature.

Here is the Committee

Following are the members of the committee of 15 appointed by the Oklahoma-Kansas division of the Mid-Continent Oil & Gas Association, to study the Marland Conservation bill and to secure the views of oil producers on the bill:

William N. Davis, vice-president, Phillips Petroleum Co., Bartlesville.
Charles C. Brown, vice-president in charge of production and pipe lines, Marland Oil Co.
Wirt Franklin, independent operator, Ardmore, Okla.
C. J. Wrightsman, president, Wrightsman Petroleum Co., Tulsa.
Louis Campbell, chief of land department, Magnolia Petroleum Co., Oklahoma City.
E. H. Chandler, head of legal department, Sinclair Oil & Gas Co., Tulsa.
J. H. Hill, counsel, The Texas Co., Tulsa.
John M. Lovejoy, vice-president and general manager, Amerada Petroleum Corp., Tulsa.
John A. Wolfe, general superintendent, Prairie Oil & Gas Co., Tulsa.
Clyde Pape, secretary-treasurer, Selby Oil & Gas Co., Tulsa.
George S. Rollin, superintendent, Roxana Petroleum Corp., Tulsa.
C. C. Herndon, vice-president, Skelly Oil Co., Tulsa.
R. L. Gordon, Indian Territory Illuminating Oil Co., Bartlesville.
George Moody, vice-president in charge of production, Mid-Continent Petroleum Corp., Tulsa.
Burt H. Collins, Echo Oil Co., Tulsa.

As far as is known no steps have been taken in either California or Texas to bring about the introduction of similar conservation measures there. Texas operators have not discussed the matter in formal meeting. In California the opinion among operators seems to be strongly that existing legislation is sufficient to allow conservation measures of the kind proposed to be put into effect if they are deemed advisable.

The American Petroleum Institute, which last December named a committee of seven directors, of which Mr. Marland was chairman, to study the matter of conservation through holding gas in the sand, has made no late announcement in the matter. It has asked its directors to study the general proposition of state legislation of this nature and to report to its executive committee. This committee is then to hold a meeting with Mr. Marland's committee. Mr. Marland's drawing up of a bill for Oklahoma was independent of support in his committee.

THE first hearing in the legislature on the Marland bill is scheduled for Feb. 9, before the house and senate committees jointly.

As introduced, the provision in the original draft of the bill that operators must obtain permits to drill was changed to giving the state corporation commission notice when a well was started. The amount of the fees operators were to pay for each well drilled, for wells plugged and for annual inspection was changed and the provision that state officers enforcing the act be paid on the fee basis was taken out, it having been learned this was unconstitutional.

The meeting in Tulsa the 28th was open. Spokesmen for the bill were two, Charles C. Brown, of the Marland interests, and Judge D. A. Richardson, of the Oklahoma City law firm which

represents the Marland companies. The latter drew the bill, after conferences with E. W. Marland and his associates.

All others who spoke were against the bill, some on the score that it was being pushed hastily and without giving operators a chance to find out what it meant; others objected to the machinery created by the bill, terms of its enforcement, the abrupt setting up of producing methods wholly unfamiliar to the industry as a whole and the arbitrary establishment of practices upon which there is not general agreement in the industry.

The bill provides for the creation of a board of three experienced oil men, to serve without pay, who would formulate rules and lay them before the state corporation commission for adoption. The board would be appointed by the governor and approved by the senate. It would then create the conservation machinery, now in the hands of the corporation commission.

A CHIEF conservation supervisor and assistants, engineers, clerical help, would be appointed by the board. Oil gas ratios would be set up for the different fields, which means saying how much gas could be produced per barrel of oil. Gas wastage is defined and prohibited, both underground and aboveground. An elaborate system of inspections and records is provided and penalties provided for wastage of gas.

Conformity with the proposed law would mean practically the producing of most new fields under back pressure. In defense of this idea, Mr. Brown said that, on 10 Marland properties, 8 of which have been developed in the past 3½ years and the other two in the past 6 years, more profit has been realized than on all the other company properties. This, he said, was due to limiting the amount of gas produced with the oil and thus making the gas do effective work in draining the oil sands. The bill was drawn, he said, with the purpose of hitting the "obstreperous" operator who is out of sympathy with the present tendency of producers to do the thing the bill compels.

Outspoken in disapproval was W. R. Wallace, Oklahoma City, attorney for Magnolia Petroleum Co. He characterized it as the first proposal by a member of a great industry to deliver that industry over hand and foot to the state and its appointees. There is no demand for it, he said, either from the industry or the public, and general turmoil would be the result of throwing the industry into politics. For, contended Mr. Wallace, the proposed law would do just that. The attempted safeguards in the bill, to-wit, the qualification that board members must be practical oil operators, would be reduced to nullity. There is already a law in Oklahoma that the chief conservation officer must be a man experienced in the oil business, but, asked Mr. Wallace, has any attention ever been paid to that?

Henry McGraw, vice-president of the Gypsy Oil Co., and president of the Oklahoma-Kansas division of the Mid-Continent Oil & Gas Association, presided at the meeting. Opening the discussion he said it was to be deplored that the bill was not submitted first to the association for study, approval, disapproval or modification. Now that it is before the legislature he said it was the duty of the association to make up its mind as to the course to be pursued and go before the legislature prepared to express mature opinion.

WHILE Judge Richardson and C. C. Brown, alternately, were on their feet replying to questions on legal and operating phases of the bill, W. H. Gray, oil producer and president of the National Association of Independent Oil Producers, fidgeted in his chair. In a lull, his opening came.

"Have you asked the governor whether he would sign this bill, if passed?" he queried, addressing Judge Richardson.

"We have not spoken to the governor about it," was the reply.

"How many members of the legislature are committed to this bill?" he persisted.

"We have made no canvass nor obtained any commitments," said Judge Richardson.

"But you mean to drive it through, don't you? You mean to get this passed regardless of the other oil men? You write out a bill as long as—so long that nobody has time to find out what it means and jam it through. Now this is in politics. I know you say that the practical men are going to run this, but you are not talking to any novice at this game. Down in Texas, I helped get up a bill to regulate the pipe lines. We said that practical men would administer it. See where it is today. When it comes time to appoint an inspector or a supervisor, does the governor say, 'I must look around and find a practical man who understands this job?' He does not. He says, 'There's John Jones, he worked hard all summer helping me to be elected, I'll just appoint him.'

"NOW what kind of a plan have you here? You expect to get the legislature to pass this and then appropriate money enough to hire capable men for supervisors. Will they do it? Would the governor, who gets $4,500 a year, appoint a man who gets $30,000? If he did, whom would he appoint? A friend, of course.

"This is just politics and nothing more. You are setting up another board, hiring some more inspectors and who will pay the bill? The oil industry and the public. You are just going out and asking for trouble. I am opposed to your bill in its entirety."

Judge Richardson was the first speaker at the meeting. He said that this subject has been very close to Mr. Marland's heart for some time. The experience of his own company, his observations and reading have convinced him that dissipation of gas pressure vastly curtails production, leaving vast quantities in the ground. The bill was drawn with the sole purpose of expediting the efficient utilization of gas pressure to which end the industry is already working.

"We have no pride of authorship in this matter," he said. "We stand ready and willing to accept any substitute that will better the working of the plan without destroying its purpose. We welcome suggestions and are willing to help right whatever is wrong about the bill." He did say though that the matter was deemed to be urgent, and it was intended to get something done at the present session, if possible.

Questions were asked concerning the handling of very small wells, particularly

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Michigan Independent Oil Men's Association, Detroit, Feb. 10, 11.

Georgia—Alabama Independent Oil Marketers Association, Ansley Hotel, Atlanta, Ga., Feb. 11, 12.

American Institute of Mining & Metallurgical Engineers, Engineering Societies Bldg., New York City, Feb. 14, 15, 16, 17.

Illinois Petroleum Marketers' Association, Hotel Abraham Lincoln, Springfield, Ill., Feb. 16, 17.

Ohio Petroleum Marketers Association, Neil House, Columbus, O., Feb. 17, 18.

Ohio Gas & Oil Men's Association, Elks Home, Columbus, O., Mar. 1, 2.

Western Petroleum Refiners Association, Muehlbach Hotel, Kansas City, Mo., Mar. 3.

Minnesota Petroleum Association, Hotel Radisson, Minneapolis, Mar. 3, 4.

National Petroleum Marketers Association, Congress Hotel, March 8, 9, 10.

American Association of Petroleum Geologists, Tulsa, Okla., Mar. 24, 25, 26.

American Oil Burner Association, Broadway Auditorium, Buffalo, N. Y., Apr. 5, 6, 7.

Petroleum Division American Chemical Society, Richmond, Va., Apr. 11, 12, 13, 14.

American Oil Men's Association, Congress Hotel, Chicago, Apr. 12, 13, 14.

National Petroleum Association, Riverside hotel, Cambridge Springs, Pa., April 28, 29.

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National Petroleum News is copyrighted, 1927, by the National Petroleum Publishing Co. Single copies, 10 cents. Subscription rate $3.50 per year in the United States and Mexico (U. S. Money), $4.00 in Canada and $5.00 in all foreign countries. Trademark registered U. S. Patent Office. Members of Audit Bureau of Circulations and Associated Business Papers, Inc.

Published at MAIN OFFICE Cleveland, Ohio
814 Huron Road

LOS ANGELES Petroleum Securities Building
TULSA World Bldg.
NEW YORK 342 Madison Ave.
HOUSTON 608 West Bldg.
CHICAGO 360 North Michigan Ave.

those where considerable gas is produced under vacuum for gasoline plants. Would not many old properties be found to be beyond the gas-oil ratio prescribed in the bill, or, indeed, beyond any ratio that is common to newer fields and, hence, require special rulings. Judge Richardson said that the bill empowers the corporation commission to alter the ratio. E. H. Chandler, of the Sinclair Oil & Gas Co., wanted to know whether this would not mean that gasoline plants in such fields would have to shut down until the corporation commission issued an exemption order.

The requirement in the bill that each well must have a meter drew discussion. Several committee members asserted that such legislation would compel the abandonment of thousands of wells where production is too small to warrant the expense of a meter. Harry H. Smith, secretary of the association, said there are about 60,000 operated wells in Oklahoma, that it would cost millions of dollars to equip them with meters.

C. C. Brown, taking the floor while Judge Richardson took a well-earned rest, said working out the meter feature in old, small-well areas, would be simple. One meter could serve a number of wells or an entire lease with periodical hour tests with portable meter for each well, or perhaps, no permanent installations would be required at all. In the flush fields, however, more exact methods would be required to insure best back-pressuring operating, he said.

THE colloquy between Mr. McGraw and Mr. Brown, who harmoniously addressed each other as "Henry" and "Charley" but who were far apart on the subject under discussion, brought out some of the salient features of the bill.

Mr. McGraw, conceding for argument's sake that the bill might be quite innocuous so far as very small wells are concerned, said that, in new fields unfairness would result from the attempt to prescribe a definite gas-oil ratio. Delays in new fields are ruinous, he said. Data on back-pressuring of wells is most meager and there is wide disagreement among engineers as to what can be accomplished. Gas-oil ratio is influenced by a number of things, such as gravity of oil, size of opening into the sand, or well diameter, sand texture, structural position and depth of well. To attempt to reduce the wells in a given field to a uniform rule as to quantity of gas permitted to be produced per barrel of oil would compel an operator whose well happened to be making gas far in excess of the prescribed limit to reduce it and to give a neighbor, whose well might be making more nearly the prescribed amount, some of his oil, for reducing the gas would mean also reducing the daily production of oil.

The vote in favor of the Davis resolution appointing a committee to study the bill and report to the association was unopposed. The legislature may adjourn at the end of March. The session may be continued longer if desired, but members get only $2 per day after that and usually they soon get tired of failing to break even on their expenses, and serve notice on their presiding officers they are going home on a certain day.

Sixty days, therefore, remain of the present session to do something with the Marland bill. It might, of course, be called up out of committee and passed at the last minute session, when dozens of measures are ground through the mill without consideration, but the Marland representatives have indicated that they desire well considered action in the legislature.

Dr. E. T. Dumble, Dean of Texas Geologists, Dead in France

By Paul Wagner

N. P. N. Staff Writer

HOUSTON, Jan. 29

EVERY concern promoted by the Southern Pacific Co. for the purpose of producing oil was organized and allowed to grow under the direction of a man whose death in Nice, France, was announced in cable dispatches received in Houston yesterday. That man was Dr. E. T. Dumble, state geologist of Texas from 1887-1896 and thereater connected with various Southern Pacific interests until his retirement in 1925.

Professor Dumble, who had spent much of his time on a plantation in Virginia since his retirement, May 1, 1925, had gone to France a few months ago in an effort to recuperate his failing health. The cause of death, which occurred on the night of Jan. 25 at Nice, was heart failure. He was a resident of Houston for many years.

It was largely through the efforts of Dr. Dumble that geology became one of the most important factors in the production of petroleum in the southwest. He was active in California operations early in the present century, when he had an important place in the affairs of the old Kern Trading & Oil Co., then the fuel department of the Southern Pacific railroad system. Out of that grew later the Pacific Oil Co., and the Associated Oil Co., with which he held the position of consulting geologist. Besides being consulting geologist for the Rio Bravo Oil Co., and the East Coast Oil Co. of Mexico, S. A., he was their vice president and general manager at the time of his retirement.

Dr. Dumble, who would have been 75 years old had he lived until March 28, next, was born in Madison, Ind., in 1852. His higher education was received at Washington and Lee University, where he was graduated with a B.S. degree. His widow, who survives, was Miss Fanny Doswell Gray of Houston, to whom he was married June 15, 1876.

Among other distinctions Dr. Dumble was a Fellow in the Geological Society of America, American Association for the Advancement of Science and the Texas Academy of Science. He was a member of the American Association of Petroleum Geologists, the American Institute of Mining & Metallurgical Engineers and the California Academy of Science.

Notable publications of Dr. Dumble included "Brown Coal and Lignite" and the "Geology of East Texas"; besides many reports and papers on geology and mineral resources of Texas and Mexico.

Almost numberless friends in the petroleum industry and the geological profession will mourn the loss of Dr. Dumble, who will be remembered both as a comrade and a mentor. His proteges in the geological branch of the petroleum industry may be found in virtually every oil field of the world and some of them are now connected with almost every important oil company in the industry.

Bartlesville Pioneer Dead

TULSA, Feb. 1.—Dr. Howard Weber, Bartlesville pioneer oil man, died at his home Saturday. He was 64 years old. He is survived by his widow and four children, one of whom is Mark U. Weber, Denver, a well known operator in the Rocky Mountain area.

Two of his brothers are prominent in the Pure Oil Co. These are N. H. Weber of Chicago, a vice president of the company, and Judd Weber, pipe line superintendent in the Mid-Continent.

Dr. Weber developed a number of early pools in the shallow sand territory of northern Oklahoma and the famous Barney Thlocco lease in the Cushing field. Funeral services were held Jan. 31 in Bartlesville.

Would Modify Texas Law

TULSA, Jan. 31.—A measure has been introduced into the Texas state legislature seeking to repeal Senate Bill No. 180 adopted two years ago which permits foreign corporations to acquire substantial stock interests in Texas corporations. The measure was introduced by A. H. King of Throckmorton county. It was under Senate Bill No. 180 that the Standard Oil Co. of New York was able to complete the absorption of the Magnolia Petroleum Co.

Mexico May Drop From Second Place In World Output in 1927

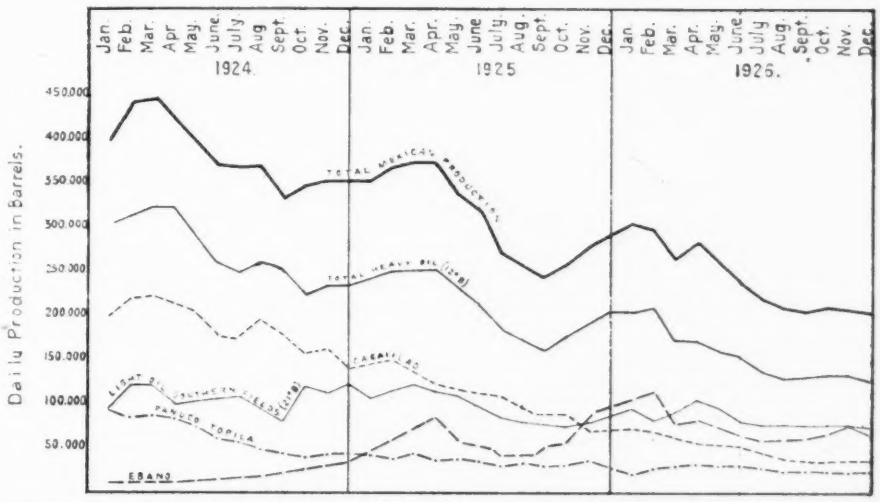
By Valentin R. Garfias and R. V. Whetsel
Foreign Oil Department, Henry L. Doherty & Co.,
New York

Prepared Exclusively for National Petroleum News

DURING 1926 the peak of development in the producing areas in Mexico was passed, placing the Mexican oil industry on a basis where new pools must be discovered if the steady decline of production is to be curtailed.

For two years production has declined at the rate of approximately 25,000,000 barrels per year, an average of 20 percent per year. The annual total production fell below 100,000,000 barrels in 1926 for the first time since 1919. The production in Mexico from the beginning in 1901 to Jan. 1, 1927, totals slightly more than 1,400,000,000 barrels.

For the oil industry in Mexico 1926 has been a period of attempted readjustments to conditions presented by the new petroleum laws and its regulations.



Average daily production of Mexican fields in 1924, 1925 and 1926. The line for the Ebano field includes production from all the area north and west of Cacalilao

Development

Drilling operations in Mexico during 1926 were slightly greater than the previous year. A total of 790 wells were completed in proven fields, being the largest number of wells completed in any one year in Mexican oil development.

The following table summarizes the development:

Northern Fields (Heavy Oil District)

	Failures	*Producers*	*Total*
Panuco	163	106	269
Topila Caracol	18	21	39
Chapacao Ebano	79	121	200
Cacalilao	112	20	132
Limon	24	12	36
Altamira	30	2	32
Total	426	282	708
Southern District	42	40	82
Grand Total	468	322	790

In the northern district (12° Be.) almost 40 percent of the wells completed were producers, the previous year only 35 percent. The average initial production of the successful wells was much lower, however, salt water appearing almost immediately in the larger wells. The greatest drilling activity took place in the old Panuco district, while the number of completions in Cacalilao was only half as great as in 1925.

The outstanding feature of the northern development was the discovery of a new pool by completion of a 10,000-barrel well in Altamira, about 14 miles north of the producing area of Corcovado. To the end of the year only 2 producers had been completed in the new district, out of a total of 32 wells drilled, the second producer (400 barrels daily) being about five miles south of the discovery well and on a direct line with it and the Corcovado producing area. The early appearance of salt water in the producing wells, and the fact that wells drilled as close as 60 meters to the producers have been dry, does not make this northern extension very promising. A total of 36 wells were completed in the Limon district, west of Cacalilao, 12 of which were small producers.

Drilling in the southern fields along the Dos Bocas Alamo structure "knife-edge" was at a slightly greater rate than the previous year, with a higher percentage of successful completions, but in almost all cases the producing wells were reduced immediately to small "strippers" because of salt water invasion.

Five wells were completed in the Laguna de Tamiahua, all failures. To the southwest of the southern fields the deepest test yet made in Mexico (6554 feet) was completed for a dry hole in Hacienda La Pita. Other failures were completed further south near the old Furbero field and in Palma Solo. A few "wildcats" were drilled in Quebrache and south of Topila, with no favorable results.

Drilling activity in the proven areas of the Isthmus of Tehuantepec region increased during 1926. Up to October 14, producers had been completed in the Hacienda Filisola, Minatitlan, Vera Cruz, having an average initial production of 315 barrels daily. One producer was completed in Belem, State of Tabasco, with 30 barrels daily production.

Toward the end of the year two interesting tests were being started in northern Mexico. One near Camargo, State of Tamaulipas, only a few miles south of the Rio Grande, and another near San Marcos, State of Coahuila.

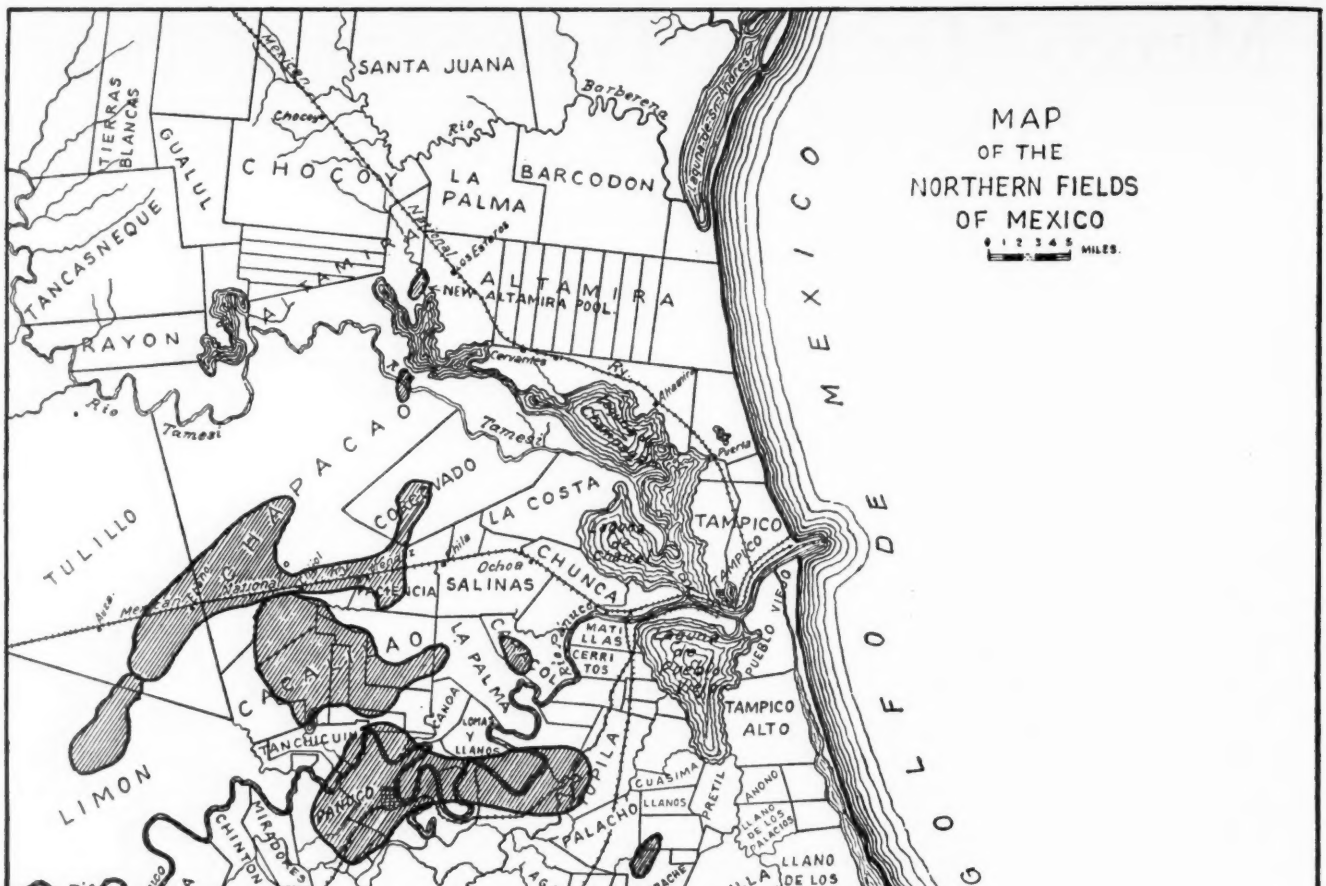
Production

The following table gives a comparison of the production of 1926 to that of the previous year:

	1926	*Change Over 1925*	
Northern Fields (12°Be.)	58,000,000	19,700,000	Dec.
Southern Fields (21°Be.)	31,500,000	5,200,000	Dec.
Isthmus of Tehuantepec	1,200,000	950,000	Inc.
Totals	90,700,000	23,950,000	Dec.

In the northern fields (heavy oil district) the trend of production gradually declined from a daily average of approximately 210,000 barrels in January to 132,000 barrels in August and remained at about this level the last four months of the year. The greatest decline occurred in the Cacalilao area, production dropping from a daily average of 76,000 barrels in January to 36,000 barrels at the end of the year. Decrease in production of the Ebano Chapacao district was almost as great.

The old Panuco area, due to intense drilling activity the first six months of the year, maintained a fairly steady production throughout 1926, but salt water invasion was causing a marked decline in the output of the larger wells of this area toward the end of the year. It is of interest to note that in the northern



Shaded districts are northern heavy oil fields of Mexico, the Panuco field being the most southern and the new Altamira field the most northern

district during December, 1925, a total of 389 wells were producing a daily average of 194,000 barrels, or an average of 498 barrels per well, while during December, 1926, 564 wells were producing a daily average of 128,000 barrels, or an average of only 227 barrels per well.

In July the completion of a 10,000-barrel well in Altamira justified building a pipe line to the Tamesi river, where the oil was brought to the sea terminal in barges. This well, which was very shallow for the heavy oil district (1492 feet) produced for approximately two months 8000 barrels daily before the appearance of salt water. By the end of the year the well was making less than 3000 barrels. Only one other well has had production in this area, but only flowed a few weeks at less than 300 barrels a day.

Production in the southern fields gradually decreased throughout 1926 from a daily average of 100,000 barrels to 75,000 barrels, notwithstanding that there were more wells completed in 1926 than the previous year. Over 60 percent of the production came from the Tierra Blanca and Cerro Azul pools. While at the end of the year the daily production was only 75,000 barrels, it is probable that there is some production closed in and that the potential production of the district is possibly close to 90,000 barrels daily.

Several successful completions in Filisola, Minatitlan, State of Vera Cruz, have brought about a decided increase in the production of the Isthmus of Tehuantepec region during the year. The production has increased from a daily average of 1600 barrels in January to approximately 4500 barrels daily at the close of the year.

Oil In Storage

Actual figures of oil stocks in Mexico were not available at the end of the year, but estimates from consumption, shipments and production show that total withdrawals during 1926, amounted to approximately 7,000,000 barrels. At the end of the year oil in storage in Mexico was the lowest it has been since 1919.

The following table shows oil stocks by grades:

Mexican Oil Stocks
(In U. S. barrels)

	Jan. 1 1926	Jan. 1 1927
Heavy Crude 12° Be.) ..	9,600,000	7,400,000
Fuel Oil (17° Be.)	7,900,000	4,900,000
Light crude (21° Be) ..	2,800,000	2,000,000
Distillates	2,200,000	1,200,000
	22,500,000	15,500,000

Available steel storage was considerably reduced because of the abandoning of tank farms and terminals.

Domestic Consumption and Refining

Domestic consumption for 1926 is estimated to be about 17,000,000 barrels, or the same as 1925, of which approximately 7,500,000 went to interior consumption and the balance to railroads and local or field use.

In spite of declining production, the oil refined in Mexico was estimated at about 42,000,000 barrels, about the same as for 1925.

Following is an estimate of the amount of crudes run through refineries in 1926, in U. S. barrels:

Heavy Crude (12° Be.)	10,000,000
Light Crude (21° Be.)	32,000,000
	42,000,000

Refined products may be roughly divided into 35,600,000 barrels of 17 Be. fuel oil and 6,400,000 barrels of 56 Be. distillates.

Imports

Imports of petroleum derivatives into Mexico in 1926 were 700,000 barrels, slightly less than during 1925.

Exports

Exports during 1926 decreased in proportion to the decline in production, totaling approximately 81,800,000 barrels, or 20,000,000 barrels less than 1925. The light crude exported was less than 400,000 barrels, or a decrease of 4,000,000 barrels. Heavy crude shipments decreased 16,000,000 barrels, while fuel oil shipments remained about the same. Distillates shipped totaled 1,000,000 barrels more.

Exports by grades for 1926 were approximately as follows, in U. S. barrels:

Heavy Crude 12° Be.)	37,600.000
Fuel Oil (17° Be.)	33,600,000
Light Crude (21° Be.)	400,000
Distillates	6,400,000
Bunkers	3,800,000
Total	81,800,000

In addition to the above, about 420,000 barrels were exported from Puerto, Mexico.

Shipments to the United States amounted to approximately 53,800,000 barrels, or about 66 per cent of the total exports, while during 1925 shipments to the United States totaled 71,500,000 barrels, or 73 per cent of the total. Shipments to other countries were considerably lower than in 1925.

The decline in exports has caused the abandonment of practically all the sea-loading stations at Puerto Lobos and a few of the deep water terminals on the Panuco river at Tampico.

Market Conditions

Practically all the light oil output continued to be controlled by two major companies which refined it in local plants. The small amount of independent light oil production was purchased by these companies.

For the first three months of 1926 the scarcity of tankers and high charter rates, accompanied by marketable flush production on the railroad right-of-way in Chapacao, held the price of Panuco crude (12° Be.) down to $1.12 f.o.b. ship, and the price increase that usually occurs this time of the year did not take place. During the second quarter the price increased to $1.17 f.o.b. ship, but fell to $1.12 again during the third quarter. Toward the end of the year the decline in production and scarcity of independent oil increased the price to about $1.25 f.o.b. ship.

The Mexican domestic market in refined products continues to be controlled by two of the major companies and toward the end of the year the National Railway production was hardly sufficient to supply their own needs.

Taxes

A SMALL increase in oil prices, upon which Mexican oil export and production taxes are based, made very little changes in the taxes during 1926. A comparison of total taxes in January and December is shown in the following table, in U. S. cents per barrel:

	January 1926	December 1926
Heavy Crude (12° Be.)	17	17.5
Fuel Oil (17° Be.)	27	28
Light Crude (21° Be.)	30.3	30
Distillates (average 56° Be.)	55	57.5

These figures do not include minor taxes of an additional 2 cents per barrel.

A few minor changes were made pertaining to individual income tax, but no changes were effective in this tax regarding corporations. Article six of the new Petroleum Law has been interpreted to mean that the oil industry can only be taxed by the Federal Government and that, therefore, it cannot be taxed by states or municipalities.

Petroleum Legislation

The petroleum and alien laws promulgated in December, 1925, and January, 1926, and their regulations issued during 1926 were put in operation by the end of the year, with the result that some companies complied with their provisions, while others took legal steps to bring this question before the Mexican Courts for decision.

The National Oil Reserves were created by decree of November 30th, 1926, which reads as follows:

"Sole Article:—From and after the enactment of this Decree, the following lands will be segregated to form part of the National Petroleum Reserves, to wit:

I. Free lands, in accordance with Article 6 of the Regulations of the Petroleum Law, which may be comprehended by a strip of land 50 kilometers wide, adjoining the northern frontier of the country, between the coasts and territorial seas of the Pacific Ocean and the Gulf of Mexico.

II. Free lands, in accordance with the Regulations above mentioned, which are comprehended by the former Central District of the State of Tamaulipas.

III. National free lands, in accordance with the same Regulations, which may exist in the States of Chihuahua, Coahuila, Nuevo Leon, Tamaulipas, Durango, San Luis Potosi, Jalisco, Guerrero, Puebla, Vera Cruz, Tabasco, Chiapas and Oaxaca."

Outlook for 1927

IN December, 1925, 127 wells were drilling in the proven areas, 109 being in the northern fields (heavy oil district) and 18 in the south field (light oil district), while during December of 1926 only 71 wells were drilling in the northern proven areas and 13 in the southern district.

While it is reasonable to assume that both the heavy and light oil districts are now in what may be called a more or less settled production basis, drilling activity in the producing areas must continue at more than the present rate to hold the production at its present rate of decline.

As has been the case with previous estimates of Mexican production, made by the authors, the reader must be cautioned that such more or less judicious guessing has for a basis the past producing history of the fields and the present status of development and production. The indications are production for 1927 will be considerably lower than in 1926. With an early settlement of existing difficulties it is estimated that the production of 1927 should be about 45,000,000 barrels for the heavy oil and some 25,000,000 barrels for the light crude, or a total of close to 70,000,000, a decrease of about 20,000,000 barrels from the 1926 production.

Under these conditions it is not improbable that 1927 will see the outranking of Mexico by Russia as the second oil producing country, as the present trend of production in the latter indicates for 1927 a yield in excess of 70,000,000 barrels.

The above estimates do not take into account possibility of the discovery of new pools. At the beginning of 1926, 13 wells were drilling that could be called "wildcats," exploring new territory, and at the close of the year only three such wells were drilling so it is not reasonable to expect material relief from this source during 1927.

The writers continue to be optimistic regarding the ultimate and satisfactory settlement of the long pending questions related to the Mexican Petroleum Legislation and hope that the year of 1927 will see an equitable and amicable adjustment of these long standing difficulties.

Oklahoma City Test May Be Producer

(By Telegraph)

TULSA, Feb. 1.—The wildcat test of the Cromwell Oil & Gas Co., No. 1 Edwards, two miles north of the state capitol building, Oklahoma City, reported a month ago as showing for an oil well, is now being tested on the pump and looks good for 50 to 75 barrels daily. In the last four days it has pumped 200 barrels of 31.8 gravity crude.

History of the well is that five-inch casing was set at 4352 feet, showing of oil was had at 4383 feet, it was deepened six feet to 4389 and the hole filled with water. It was plugged back to 4387 feet, swabbed and again made water. The casing was then cemented and when the plug was drilled out, water found to have been shut off and the hole filled up 4000 feet with oil. Well is in southwest corner NE SE 10-12-3 west.

CORRECTION

In the week's price changes in tank wagon markets published opposite the tank wagon table in this week's issue, it is stated that the Atlantic Refining Co.'s 1 cent gasoline advance on Jan. 31 was through its territory. The advance on that date was in Pennsylvania and Delaware only, as a 1 cent advance had been made in New England Jan. 28.

Prices at New England points in Atlantic Refining territory in this week's tank wagon table should be: 21 cents tank wagon price of gasoline at all points, excluding state taxes; 23 cents service station price all Massachusetts points; 24 cents service station at Providence; and 25 cents service station price at Hartford and New Haven, latter prices including state taxes.

Also, in a note at the bottom of the S. O. New York territory in the tank wagon table, it is stated that a second grade of gasoline is being sold by the Standard at Rochester at 2 cents below the posted price of Socony gasoline. Another grade is also being sold, Independent oil marketers report, at 3 cents below the posted price.

Refiners Still Hope to Re-Open Mid-Continent Rate Case

Staff Special

TULSA, Jan. 31

IN spite of the order of the Interstate Commerce Commission directing the railroads to publish increases in rates on petroleum products from the Mid-Continent field by April 20, refiners in this area have not entirely given up hope of reopening the Mid-Continent Oil Rate case of 1925, as a result of which the increases were authorized.

A supplemental petition for re-hearing was filed with the commission on Jan. 15, on behalf of the eight large refining companies in northeastern Oklahoma which originally combatted the efforts of Kansas and Kansas City refiners to obtain differentials under Group 3.

Additional petitions for reconsideration have been filed with the commission by The St. Louis Chamber of Commerce, the East St. Louis Chamber of Commerce, the Illinois Petroleum Marketers Association, the American Oil Men's Association and the Chicago Oil Men's Club. Other shippers of petroleum products from Oklahoma who were not involved in the case are asking for a re-opening and permission to intervene. These include the Wilcox Oil & Gas Co., Cushing Refining & Gasoline Co., Globe Oil & Refining Co., Riley Petroleum Co., Continental Oil Co., Interocean Oil Co. and the Producers Oil Co.

THE commission's decision in the 1925 case was announced in mid-summer last year. At that time the carriers were directed to put the rates into effect within 120 days. But negotiations have continued since that time and before the commission made its order known on Jan. 22, it was apparent that the railroads would not take advantage of the higher rates allowed unless they were ordered to do so. It is understood that the commission reached its decision on Jan. 14, one day before the present petition for rehearing was filed. The order is not considered a denial.

The railroads, particularly those serving Oklahoma refiners, apparently have been convinced that the effect of the order will be to hamper the refining industry in Oklahoma, north Texas and other areas affected by rate increases, and eventually may result in the dismantling of plants and their movement into consuming centers where crude may be obtained by pipe line and rail hauls shortened.

Commissioner Cox formerly had the Mid-Continent case in charge but on Jan. 1, his term as commissioner expired and he was not re-appointed. The commission reached its decision to require publication of the rates after the retirement of Commissioner Cox.

The commission's order fixes differentials over and under Group 3 and prescribes reasonable maximum rates to a series of key points. The railroads will not be forced to raise the Oklahoma rates but if they do not raise the Oklahoma rates they must reduce the Kansas and Kansas City rates to comply with the differential ruling. It is well known that the railroads serving Kansas and Kansas City are not willing to cut their rates. The differentials ordered by the commission and the Group 3 rates proposed are given in the following table.

		Differentials under Group 3		Differentials over Group 3					
To	Rate from Group 3 Cents	From Group 1 Cents	From Group 2 Cents	From North Texas Group Cents	From Ranger group Cents	From Shreveport El Dorado group† Cents	From New Orleans La. Cents	From South Texas group Cents	From San Antonio Tex* Cents
Kansas City, Mo.	27	....	7	4	5.5	4.5	....	7	7
Des Moines, Iowa	33	9	3.5	2.5	4	3	....	5.5	5.5
Cedar Rapids, Iowa	35.5	8	2.5	2.5	4	3	....	5.5	5.5
Fort Dodge, Iowa	36.5	8	2.5	2.5	4	3	....	5.5	5.5
Mason City, Iowa	38	7	2	2.5	4	3	....	5.5	5.5
Omaha, Nebr.	33	9	3.5	2.5	4	3	....	5.5	5.5
Lincoln, Nebr.	33	9	3.5	2.5	4	3	....	5.5	5.5
Sioux City, Iowa	36	8	2.5	2.5	4	3	....	5.5	5.5
Sioux Falls, S. Dak.	40	7	2	2.5	4	3	....	5.5	5.5
St. Louis, Mo.	32	7	2	2.5	4	0	1.5	3	4.5
Keokuk, Iowa	33.5	7	2	2.5	4	0	....	3	4.5
Dubuque, Iowa	38	7	2	2.5	4	1.5	....	4	5
Peoria, Ill.	36	7	2	2.5	4	0	1.5	3	4.5
Chicago, Ill.	39	7	2	2.5	4	0	1.5	3	4.5
Milwaukee, Wis.	42	7	2	2.5	4	0	....	3	4.5
Wausau, Wis.	46	7	2	2.5	4	1.5	....	4	5
St. Paul, Minn.	42	7	2	2.5	4	3	....	5.5	5.5
Duluth, Minn.	47	7	2	2.5	4	3	....	5.5	5.5

†Where zero is shown the rates shall be the same as from Group 3.
*The bases prescribed from San Antonio shall also apply from Somerset and Luling, Tex.
The application of group rates should be determined by reference to the text of the report and the existing groupings in the applicable tariffs.

IN their petition for reopening of the case the Oklahoma refiners seek to point out the effect of freight differentials on gasoline business. On the basis of shipment records of 33 companies in 1925, Kansas plants with around 30 per cent of the refining capacity of the states of Oklahoma and Kansas shipped 75 per cent of all the oil moved from the two states into the area where Kansas now enjoys a differential of 2 cents or more. Oklahoma plants with 70 per cent of the total capacity shipped only 30 per cent of the total movement into this differential territory. Into non-differential consuming territory the Kansas plants shipped 25 per cent of the oil and Oklahoma plants 75 per cent.

It is known that a number of Oklahoma refiners, particularly those near the Kansas line have canvassed the possibility of piping their products to Kansas loading racks if the rates are made effective. An industrial short line has been figured out to be a paying proposition from some plants into Kansas to save the $12 per car differential. On the business of the eight companies pushing the petition it is stated that the $12 or 2-cent differential will mean a handicap of $814,068 per year on the basis of 1925 shipments into Western Trunk Line Territory, and an additional $300,288 per year if the differential is carried on through the Mississippi gateways to Central Freight Association territory, making a total handicap for eight companies of $1,114,356 per year. This amount would be greater now since production has increased from year to year in line with consumption.

Primtex Opens Refinery At Grand Prairie

Staff Special

DALLAS, Jan. 29.—The Primtex Refining Co., a new organization, has taken over the plant formerly owned by the State Refining Co., at Grand Prairie, Dallas county, Texas, and has begun operations. The plant was obtained from Dallas banking interests which were forced to take it in from the Lucas Oil & Refining Co. General offices of the Primtex are in the Central National Bank building, Dallas.

The Primtex is owned by the same interests controlling the Primrose Refining Co., Wichita Falls, and the Primrose Petroleum Co., a Dallas marketing organization which has been in business a number of years. Herbert Brin is president of the Primtex, S. E. Brin, vice president and E. Garonzik, secretary and treasurer. Raymond Brin is handling tank car sales.

The plant at Grand Prairie has been reconditioned for operation and brought up to a capacity of 2500 barrels per day. New towers have been built for the production of export gasoline on which the company will specialize. Plans are being made to increase storage capacity by building five 1000-barrel tanks and three or four 500-barrel tanks. The plant is connected with the Texas Co. pipe lines, and is running crude from the Ranger district.

AMARILLO, TEX.—J. H. Coker, of Amarillo, has leased about 40,000 acres in Chaves county, N. M., some 25 miles north of Roswell. The White Eagle Oil & Refining Co. will join in drilling a 3500-foot test, Mr. Coker says.

Panhandle To Have 41 Gasoline Plants March 1

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, Jan. 31

BY March 1 it appears probable that there will be 41 natural gasoline plants in the Panhandle field capable of handling 437,000,000 cubic feet of gas per day and of producing 432,000 gallons of natural gasoline per day. At present there are 34 plants in operation with a gas capacity of 341,000,000 cubic feet and a gasoline capacity of 318,500 gallons per day.

Six plants are now building in the field. Phillips Petroleum Co., the largest producer in the field, is building three plants. The Skelly Oil Co. is building one, Magnolia Petroleum Co. one and Marland Oil Co. one. These plants will have a gas capacity of 88,500,000 cubic feet per day and a gasoline capacity of 106,000 gallons per day. The Atlantic Oil Producing Co. proposes to build a 7500-gallon semi-portable absorption plant in Gray county.

Accompanying is a list of natural gasoline plants in the Panhandle with location, type, capacity and present status:

Natural Gasoline Plants in the Texas Panhandle

Owner	Location	Type	Capacity Millions of Cubic Feet	Capacity Gallons of Gasoline	Status
HUTCHINSON COUNTY					
Cal-Tex Gasoline Co.	SE/4 Sec. 19 Blk. Y Blackburn Lease	2 unit Portable Abs.	6	6,000	Operating
Cal-Tex Gasoline Co.	SW/4 Sec. 14 Blk. Y Sunburst Lease	2 unit Portable Abs.	6	6,000	Operating
Dixon Creek Oil Co.	NW/4 Sec. 11, Blk. Y Dixon Creek Lease	2 unit Portable Abs.	6	7,500	Operating
Dixon Creek Oil Co.	SW/4 Sec. 14 Blk. Y Cockrell-McIlroy	2 unit Portable Abs.	6	6,000	Operating
Empire Gasoline Co.	NE/4 Sec. 19, Blk. Y Empire Lease	Portable Abs.	3	2,500	Operating
Gas Chemicals Corp.	SE/4 Sec. 11, Blk. Y Japhet Lease	Absorption	24	24,000	Operating
Marland Oil Co.	NE/4 Sec. 20, Blk. Y Marland Lease	Absorption	10	13,000	Operating
Phillips Pet. Co.	SE/4 Sec. 21, Blk. Y (Borger Plant)	Absorption	38	42,000	Operating
Phillips Pet. Co.	SW/4 Sec. 10, Blk. Y (Centerfield Plant)	Charcoal	10	8,000	Operating
Phillips Pet. Co.	Sec. 16 Blk. X-2 (Canadian Plant)	Absorption	18	25,000	Building
Phillips Pet. Co.	Tract 8, Whitely (Pantex Plant)	Absorption	38	42,000	Operating
Phillips Pet. Co.	SW/4 Sec. 5, Blk. Y (Twin 6 Plant)	Absorption	7.5	10,000	Building
Phillips Pet. Co.	Sec. 69-N-160 of S-240 H&TC Blk 46 (Johnson)	Absorption	38	45,000	Building
Roxana Pet. Corp.	SW/4 Sec. 11, Blk. Y B. Smith Lease	Portable Abs.	3	3,000	Operating
Skelly Oil Co.	NE/4 Sec. 5 Blk. Y McMann Lease (Plants Nos. 1 and 4)	Charcoal	8	8,000	Operating
Skelly Oil Co.	SW/4 Sec. 11, Blk. Y Lenix-Patterson Lease (Plant Nos. 2 and 8)	Charcoal 2 plants	12	12,000	Operating
Skelly Oil Co.	NW/4 Sec. 20, Blk. Y (Plant Nos. 3, 7, 9 and 10)	Charcoal 4 plants	23	23,000	Operating
Skelly Oil Co.	S/2 Sec. 4 Blk. 4 Cunningham Lease (Plant No. 5)	Absorption	24	24,000	Operating
Skelly Oil Co.	SW/4 Sec. 6 Blk. Y Skiatex Lease (Plant No. 6)	Charcoal	7	7,000	Operating
Skelly Oil Co.	SE/4 Sec. 6, Blk. Y Skiatex Lease (Plant No. 11)	Absorption	6	6,000	Building
Total Hutchinson County	25 Plants	Operating	224.0	234,000	
	4 Plants	Building	69.5	86,000	
	29 Plants	Total	293.5	320,000	
POTTER COUNTY					
Cannon Gasoline Co.	SW/4 Sec. 159 Blk. 2	Absorption	30	6,000	Operating
Total Potter County	1 Plant		30	6,000	
CARSON COUNTY					
Marland Oil Co.	SW/4 Sec. 116 Blk. 5 Marland Lease	1 unit Abs. Portable	7	8,000	Building
Phillips Pet. Co.	SW/4 Sec. 113, Blk. 6 (Panhandle Plant)	Absorption	25	30,000	Operating
Phillips Pet. Co.	Sec. 107, C of S Line (Marland Plant)	Charcoal	10	8,000	Operating
Phillips Pet. Co.	Sec. 115, C of W/2 (Carson Plant)	Charcoal	13	10,000	Operating
Roxana Pet. Corp.	SE/4 Sec. 107, Blk. 4 C. Bryan Lease	1 Unit Portable Abs.	10	7,500	Operating
Total Carson County	1 Plant	Building	7	8,000	
	4 Plants	Operating	60	55,500	
	5 Plants	Total	67	63,500	
GRAY COUNTY					
Atlantic Oil Prod. Co.	NW/4 Sec. 87 Blk. 3 Prairie-Atl. Lease	1 unit Portable Abs.	2	2,000	Operating
Atlantic Oil Prod. Co.		1 unit Portable Abs.	7.5	7,500	Proposed
Empire Gasoline Co.	Sec. 152 Cen. N/2 Heitholt Lease	1 unit Portable Abs.	4	1,000	Operating
Magnolia Pet. Co.	NW/4 Sec. 82 Blk. 3 Merton Lease	Absorption	12	12,000	Building
H. F. Wilcox O. & G. Co.	SW/4 Sec. 62 Blk. 3 Wilcox Lease	Absorption	11	10,000	Operating
Total Gray County	1 Plant	Building	12	12,000	
	1 Plant	Proposed	7.5	7,500	
	3 Plants	Operating	17	13,000	
	5 Plants	Total	36.5	32,500	
WHEELER COUNTY					
Phelps Gas Co.	SE/4 Sec. 41 Blk. 24 Gibson Lease	Absorption	10	10,000	Operating
Total Wheeler County	1 Plant		10	10,000	
Summary For Panhandle	1 Plant	Proposed	7.5	7,500	
	6 Plants	Building	88.5	106,000	
	34 Plants	Operating	341.0	318,500	
	41 Plants	Total	437.0	432,000	

Michigan Jobbers Talk State Advertising

GRAND RAPIDS, Feb. 1.—The intrastate collective advertising plan will be placed before Michigan jobbers at their annual meeting at Hotel Statler, Detroit, Feb. 10 and 11, according to Wayne C. Hughes, secretary of the Michigan Independent Oil Men's Assoc.

This plan originated among secretaries of the state jobbing associations. The purpose is to allow jobbers to tie up to their state organizations through common advertising emblems playing up the service to the motorist the Independents offer through their stations. Although similar campaigns might be carried on in several states, and similar advertising insignia be used, each state would work out its own campaign separately.

Among the speakers at the Detroit meeting will be Dr. Gustav Egloff, of the Universal Oil Products Co., who will talk on anti-knock gasoline, and Howard Coffin, of the White Star Refining Co., Detroit, who will talk on merchandising.

Secretary Hughes promises the "biggest" and "finest" exhibit of oil marketing equipment ever put on by a state association.

TULSA, Jan. 29.—Skelly Oil Co. has increased its production of natural gasoline to a net average of 141,000 gallons per day. Around 53,000 gallons per day is being manufactured in the Panhandle field of Texas. In December the company shipped 426 cars of natural gasoline from its various plants and 1666 cars of refinery gasoline from its refinery at El Dorado, Kan.

Roxana Planning Water Route to Michigan

CHICAGO, Jan. 29.—The report comes from Muskegon, Mich., that Roxana Petroleum Corp. has obtained a permit to erect buildings and tankage to the value of $50,000 on lake frontage there. Jobbers in that part of Michigan have it on what they consider good authority that Roxana plans an extensive local distributing plant as well as a water terminal.

By reason of having the best natural harbor on the east coast of Lake Michigan, Muskegon promises to become the point of origin for most of the gasoline rail shipments in the western part of the state. Movement by water is so much cheaper than rail shipments, and gasoline is so cheaply transferred from storage to boat, and vice versa, that it promises to increase as volume shipments are justified.

The Standard Oil Co. of Indiana has extensive bulk storage for gasoline at Muskegon, one of three terminals it has in the lower peninsula. It has several on the Wisconsin side of Lake Michigan of which the one at Green Bay is probably the largest.

Roxana's new refinery in East Chicago, Ind., close to those of the Standard and Sinclair Refining Co., is to begin operating on or before March 1, running 15,000 barrels of crude oil at first and increasing later to 25,000 barrels daily. Moreover it is rumored that Roxana has been negotiating for a terminal location near Toledo, O.

For a long time the Standard Oil Co. has shipped gasoline in tankers from Calumet, Ind., to Muskegon and moved it by rail back toward the refinery as far as Kalamazoo, Mich. The gasoline rail rate from Muskegon to Kalamazoo is 17½ cents a hundred, and the rate from Whiting direct to Kalamazoo is 20½ cents.

Mid-Continent Petroleum Holds Sales Meetings

CHICAGO, Jan. 31.—Mid-Continent Petroleum Corp., Tulsa is holding a series of two-day sales meetings at the company's four divisional headquarters. Raymond Shaw, E. T. Sadler Co., Chicago, who has charge of the corporation's advertising, and L. V. Surtees, whose lecture on refinery practices and oil technology has been delivered to the sales force of many a Cosden customer, attended the first conference in Louisville.

The meeting in Louisville, Ky., was Jan. 29 and 30, the second will be in Centralia, Ill., Feb. 5 and 6, the third in St. Joseph, Mo., Feb. 12 and 13, and the last one in Dubuque, Ia., at a date to be set later, probably Feb. 19 and 20. Messrs. Shaw and Surtees will attend all.

The Dubuque meeting will be one of the most spectacular. The Mid-Continent Petroleum Corp.'s properties there consist largely of the properties of the Leader Oil Co., founded and developed by the L. F. Kuehnle, who turns the active management of Leader Oil Co.'s affairs over to the new owner Feb. 1. Tom E. Meece, who has been manager of the Leader Oil Co.'s for three years, will continue as division manager for Mid-Continent.

Previous to this tour, Mr. Surtees showed the Mid-Continent companys motion picture of oil field and refinery practices to the truck drivers and filling station men of his company's customers in Flint, St. Joseph, Kalamazoo, Ann Arbor, Detroit and Bad Axe, Mich., and South Bend, Ind.

Marland Salesmen Meet In Chicago

CHICAGO, Jan. 29.—The annual get-together meeting of salesmen in the Chicago division of the Marland Refining Co. was held today at the company's headquarters, 208 S. LaSalle St. Sales work was discussed with Joseph B. Mudd, Chicago division manager, and Charles H. Chapin, assistant manager.

Announcement was made by Mr. Mudd of winners in the three months' new account contest which closed Dec. 31. R. P. Fleckenstein, Flint, Mich., won first prize which gives him possession of the manager's cup for one year and a trip to the Ponca City refinery. Second place was awarded to T. R. Vaughn, Elgin, Ill., which carries a trip to Ponca City. C. S. Hall, Champaign, Ill., won the $50 cash award for third place.

The contest was to stimulate new account business during the last quarter of 1926. Each Marland product was given a certain rate, or number of points on which the awards were determined. Mr. Fleckenstein had 127½ points, Mr. Vaughn 83½, and Mr. Hall was a close third with 81 points. Business from accounts not active for the previous six months was counted in the contest. The Ponca City trip will be taken by the first and second prize winners in the spring. Because of the success of the contest a like competition will be held in the last quarter of the year 1927, Mr. Chapin said.

Mr. Mudd entertained the salesmen and their wives at a dinner and dance in the evening at his home, 101 S. Waller St.

CHICAGO, Jan. 28.—In line with the news from Tulsa that O. J. Tuttle, sales manager of Empire Refineries, Inc., recently announced the arrival of a son, C. A. Beach, sales manager of Empire's Chicago district, also announces the arrival Jan. 16 of a son, Russell Sanford.

CHICAGO, Jan. 29.—R. T. Hand, district manager, California Petroleum Corp., stopped in Chicago Jan. 27 on his return trip to Oakland, Calif. Mr. Hand had been in Michigan for a month on business for the company. He was accompanied by Mrs. Hand who is a native of Michigan.

Retrenchment The Topic For N. P. M. A. Meet

CHICAGO, Jan. 28.—Retrenchment, intelligent and sane cutting down of overhead, will be the main topic of discussion at the spring convention of National Petroleum Marketers' Association Convention in Chicago, March 8, 9 and 10, L. V. Nicholas, president, has announced.

Mr. Nicholas told a story without names in his recent confidential letter to members, about a jobber who owned nine stations which aggregately were not making much money. The jobber took a drastic step, dismantled six of his stations and now has three that do nearly as much business as the nine on a much smaller overhead and show a profit.

Mr. Nicholas says there are many such companies in the United States, and that the industry and the public would be better off with less than half the present number of marketing outlets. Moreover he says there are various other extravagances of which the men in the marketing branch of the oil industry are guilty and which might better be eliminated.

The head of the N. P. M. A. is admittedly not especially optimistic with reference to 1927. He says many other students of industry and professional economists are advising against expansion in 1927, and some of them are even suggesting drastic economies. He proposes to make the 1927 spring convention an exchange of ideas on economy.

R. A. Overholser Joins N. P. M. A. Force

CHICAGO, Jan. 29.—R. A. "Ray" Overholser, who has been secretary of the Wisconsin Independent Oil Jobbers' Association for three years, the only paid secretary the Wisconsin group ever had, has joined the National Petroleum Marketers Association, 624 S. Michigan Ave., to have charge of membership. He fills the vacancy created last week when F. J. Silsbee assistant to the president, resigned.

Mr. Overholser is one of the most widely known professional secretaries in the industry, being one of the oldest in years of service and having successfully built up one of the strongest state groups in the whole country.

Mr. Overholser is thoroughly acquainted with the general policies and program of N. P. M. A. Members of the Wisconsin association were largely members of N. P. M. A. and have been active for the last three years in the campaign of mutual advertising under the Spread Red Eagle.

He has been in secretarial work most of his life. He got his early training in organization activities as a Boy Scout official in his school days.

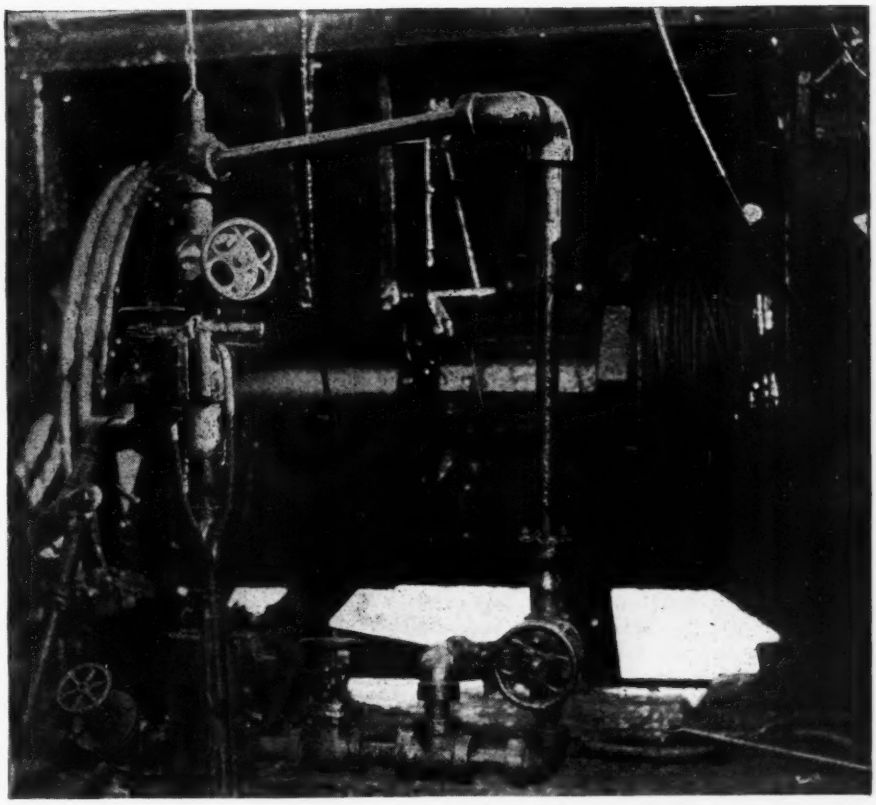
Gas-Lift in Panhandle Reduces Costs And Holds Back Water

By A. F. Hinton
N. P. N. Staff Writer

TULSA, Jan. 29

THE Texas Panhandle field practically stands in a class by itself in the number and difficulty of problems it presents to the oil producer. It was imperative that an economical method of producing should be devised if the properties in the field were to be operated at a profit. The wells go off rapidly in production and have a decided tendency to go to water. These factors were aggravated by the high congealing temperature of the crude and the excessive amount of paraffin accumulation. With ordinary production methods, many wells that could be operated at a small profit in other fields cannot be so operated in the Panhandle.

Until recently there were only two ways of producing Panhandle wells, pumping or swabbing. No Panhandle wells had long periods of flowing life. The fact is that almost no Panhandle wells ever flowed in the accurate meaning of that expression. Those that did apparently flow were spraying oil, with the expulsive force coming from an upper gas sand above the oil pay, and actually were natural gas-lift wells. As one engineer expressed it, Panhandle wells really were big gas wells spraying oil, and not oil-flowing wells at all.



Christmas tree connections on well operated with gas-lift, Marland Oil Co., Texas Panhandle

WHETHER or not the wells flowed or sprayed their production, this period of their life was quite short. Once stopped, they could be produced only by pumping or swabbing. Neither of these methods proved successful or economical in the Panhandle. The wells accumulated paraffin so rapidly and in such large quantities that a very severe strain was put on pumping equipment, resulting in a large mortality on rods and consequent increased down time. Swabbing is very expensive, from $70 to $90 a day, and results in lifting costs as high as $2 a barrel in small wells. It can be readily seen that the companies could not afford to continue swabbing after a well had gotten down to small production. Swabbing also tends to bring in water, and was probably one of the principal contributing causes of the present water trouble.

The only remaining method by which these wells might be produced was the gas-lift, now undergoing a wave of popularity in the Mid-Continent field. This method offered possibilities of coming nearer to solving all the problems of the Panhandle, and it seems destined to become the principal means of getting Panhandle crude to the surface in the future. Indeed, it may be said in passing that, from present indications, the gas- or air-lift will be the generally adopted production method wherever conditions are suitable for its application. It also may be said that, now it has succeeded in the Panhandle, it can be made to work almost anywhere.

Marland Oil Co. of Texas has taken the lead in gas-lift work in the Panhandle, and now has it operating smoothly and successfully, while most other companies are still in the experimental stages of gas-lift development. It was generally believed at the outset that gas-lift would not be successful in the Panhandle, as, by its operation, it tends to increase paraffin accumulation, rather than decrease it, and this seemed like an insuperable obstacle.

MARLAND'S first attempts at gas-lift were failures, but by constant work and experimentation, the company is successfully flowing, among others, the very wells in which the first failures were recorded. Other companies are taking up gas-lift work. Phillips Petroleum Co. is building a large compressor plant, while companies experimenting with it include Gulf, Skelly, Mid-West, Relief Oil Co., Dixon Creek Oil Co., McMan, Roxana, Humble, Devonian, and Empire. As Marland is the only Panhandle operator that has brought its gas-lift operations to a near-completion stage, this article will be devoted to the methods used and results obtained by that company.

BEFORE going farther into the details of gas-lift installations, it seems pertinent to state that this work is of such a nature that best results can be expected when it is undertaken by trained engineers who have had experience in it, and when these engineers have been given full control of the wells on which experiments are to be made. If they cannot experiment on typical producing wells, they cannot hope to get practical results. If they do not get full cooperation from the producing department, their work is hindered and often wasted.

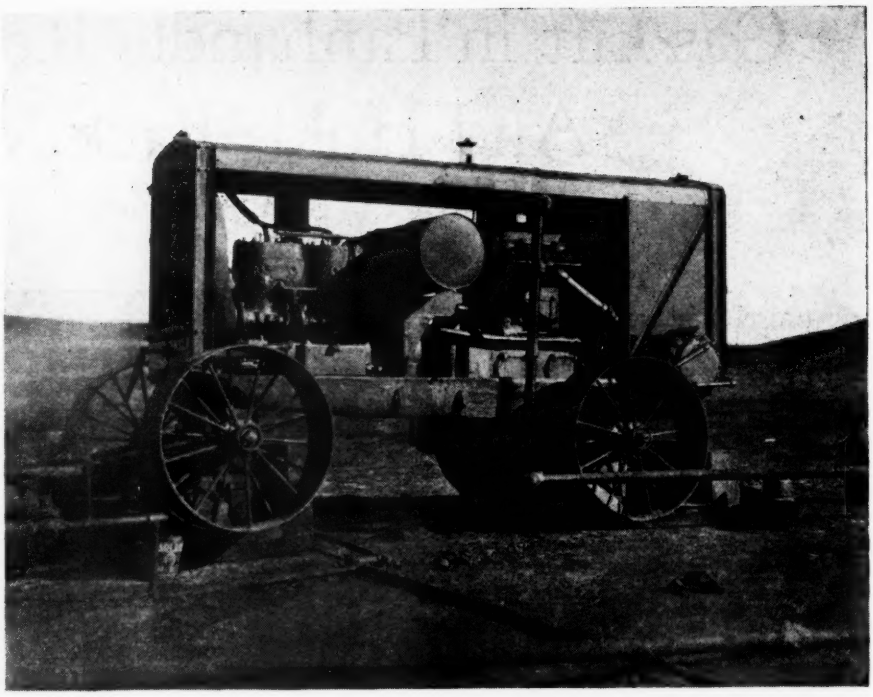
Marland's success with the gas-lift has demonstrated the value of full cooperation. Under direction of George H. McIntyre, district superintendent for the Panhandle, the production department and the engineers have worked together effectively and harmoniously with excellent results. All the gas-lift work has been done under engineering supervision of E. O. Bennett, chief production engineer, assisted by N. O. Miller, in charge of production engineering in the Panhandle. Under the Marland organization scheme, the chief production

engineer ranks as an executive department head, and reports directly to the vice-president in charge of production. Marland probably has gone farther than any other company in the employment of production engineers.

After having determined that they would pin their faith to the gas-lift as the best and most economical method of producing Panhandle wells, the Marland engineers were faced at the very start with a fight against paraffin. Average crude produced in the Panhandle congeals at about 62 degrees F. Tests determined that the average temperature of the pay horizon is from 83 to 90 degrees F. Therefore there is but little margin in which to work in the effort to prevent cooling of the oil to congealing point and also to keep paraffin accumulation at a minimum. Use of gas-lift tends to increase paraffin accumulation, on account of chilling effect caused by expansion of gas in the well.

Application of heat at bottom of well was the first method tried in the fight against paraffin, and was found successful in keeping the paraffin in solution in the oil. However, it brought on other difficulties. It caused the oil to deposit some sort of b.s. on the tubing, and this deposit accumulated rapidly, forming a hard, scaly substance that was hard to get off and gradually clogged up the well. This deposit also accumulated in the bottom of hole, and plastered up walls of the oil pay horizon. However, using the heat treatment, the Marland engineers were able to flow one well 67 days on a gas-lift, but its production dropped off steadily on account of this accumulation. Gasoline was used with some success in removing this deposit from bottom of hole. However, it was so serious a trouble that the engineers decided the heat treatment would not do, and began to cast about for some other way of whipping the paraffin problem.

AT this juncture came the development that has contributed more than any other one thing to the success of the Marland gas-lift work. This was the invention of a paraffin scraper which keeps the inside of the pipe cleaned of paraffin as rapidly as it accumulates, thus getting rid of the troublesome deposit without taking any special pains to prevent its accumulation. This scraper was invented by Ned. O. Miller, Marland production engineer in the Panhandle, and has been patented by him. He calls it the "Flow Devil," on account of its similarity of purpose to the well known go-devil used to scrape out pipe lines.



Portable compressor of type used by Marland Oil Co. in the Panhandle, in gas-lift installations

Mr. Miller's first scraper was designed to work inside the casing, his original idea being to keep the hole cleaned when swabbing or pumping. It performed this service satisfactorily, but it was necessary to design one that would work inside tubing before it could be of much help to the gas-lift problem. He succeeded in modifying his original design so that he now has flow-devils that operate successfully in the various sizes of tubing used by the company.

The flow-devil removes paraffin from inside the pipe by purely mechanical means. It is run into the hole through the casinghead or oil-saver while the well is flowing. It is run on a set of jars in the larger tubing, and on a sinker-bar in smaller sizes. It is so designed that it makes a close fit inside the pipe, the cutting edge on bottom shaving off the paraffin as the tool goes down the hole. Design of the tool prevents paraffin dropping to bottom of hole, and it is flowed out with the oil. It does not cut both ways, but only on down trip. Design of this important appliance is shown in a drawing accompanying this article, Fig. 1.

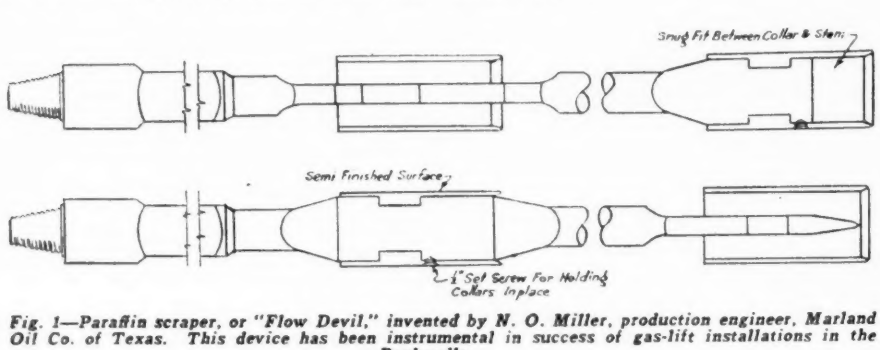


Fig. 1—Paraffin scraper, or "Flow Devil," invented by N. O. Miller, production engineer, Marland Oil Co. of Texas. This device has been instrumental in success of gas-lift installations in the Panhandle

It usually requires about 30 minutes to run this tool in and out, and it is run in each well every one to three days, according to condition of well, size of tubing, etc. Wells that could not be pumped at all on account of paraffin accumulation, and which were too small in production to be swabbed profitably, are now being successfully flowed by gas-lift, with the help of the flow-devil. In addition to removing paraffin from inside the pipe, the scraper leaves the inside of the pipe perfectly smooth. All pits, dents, and other imperfections in the pipe have been filled with paraffin and the surface polished off by passage of the scraper. This assists in obtaining flowing efficiency in gas-lift, as it reduces turbulence and promotes smooth, even flow.

HERETOFORE, scraper has been run in each well on sand line, using engine, crown block, and all regular equipment. Marland engineers, however, are working on a design for a portable outfit which will take the flow-devil around from well to well, equipped with power to run the tool into the hole and out. This outfit will consist of a truck, with hoist, and probably an electric motor for power. It will carry a light wire line on which to run the flow-devil. Wells will be wired for electricity, truck will bring motor to point where it can be plugged in, and the tool will be run on a cat head or swinging sheave or some such device. This will do away with necessity of keeping an engine, sand line, etc., at each well. Engine houses will be left at wells, and steam engine can be set up when it becomes necessary to pull tubing or do other work on the well.

The Marland gas-lift installations have not been made altogether accord- to formulae and not much recourse has been had to theoretical considera-

tions. Common sense and experimentation, Mr. Bennett says, have been the principal means of finding the proper hook-up for each well. The engineers have treated each well as a separate problem and have studied it and experimented with it until they had it working satisfactorily. They have found that what succeeds in one well has but little bearing on results in another well, even as close at hand as the next location.

SIZE of tubing is determined for each well by experiment and the engineers have been able to fix no set rule for this. They are using 2½-inch, 3-inch, and 4½-inch tubing, depending upon well condition and total amount of fluid to be lifted. Casing of the wells above the oil pay is 6⅝-inch. No foot-pieces are used on bottom of tubing, as experiment have convinced the engineers in charge that they are of no particular value in an oil-well gas lift.

In general, gas is introduced into casing, at pressure and volume determined by needs of each particular well, and oil is flowed out through tubing. The Marland engineers have designed a special packless casinghead which is gas-tight and is being used successfully. This casinghead is so designed with tapered seat that tubing is hung directly from it, so that the greater the load on it the tighter it becomes.

The wells are flowed with residue gas from the company's gasoline plant under a re-cycling program in which the gas is continually circulating through the plant and into the wells. Marland is so far the only company using residue gas in this way in the Panhandle. It is a conservation measure in that no gas is wasted anywhere in the process. The gasoline plant, which is on the Johnson-A lease, has capacity of about 13 million cubic feet of gas daily. It is of the absorption type, and delivers residue at about 30 pounds pressure.

The company's main gas-lift compressor plant is on the Johnson-A lease, near the gasoline plant, although the wells it is flowing are on the Whittenburg-A lease. The compressor plant was placed near the gasoline plant because it is more economical and efficient to handle high-pressure gas over a distance than low-pressure. It is about a mile from the compressor plant to the Whittenburg lease.

THE main plant consists of six units, using Ingersoll-Rand Imperial Type 10 compressors, with 12 by 16 low pressure cylinders and 7 by 16 high pressure. This equipment gives capacity of about 1,250,000 cubic feet of gas per unit daily, with intake pressure 30 pounds and discharge pressure 300 pounds. The plant, when completed, will handle from 15 to 17 wells, and lift about 5000 barrels of oil daily. The compressors are driven by 200-h.p. General Electric motors, running on 2200 volts at 700 revolutions per minute. They are close connected with short belts to the compressors.

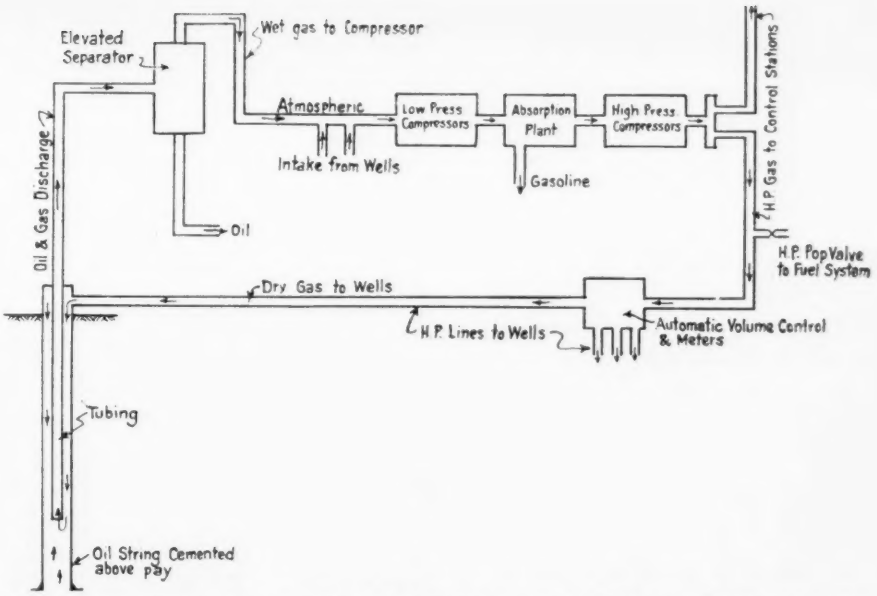
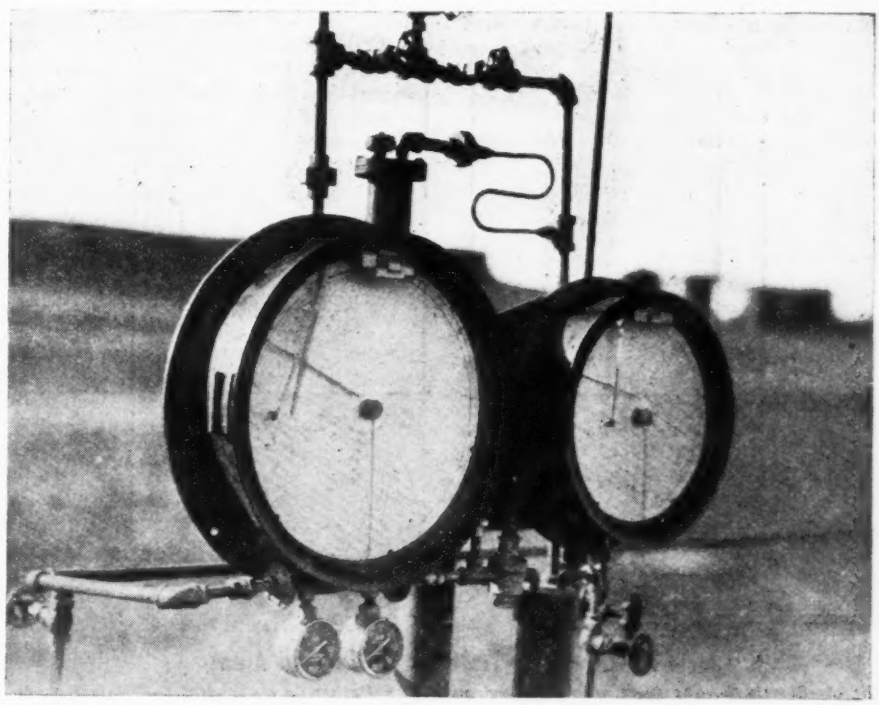


Fig. 2—Flow diagram, showing method of re-cycling gas in Marland gas-lift installation, Panhandle field, Texas

Residue gas from the gasoline plant, after going through the high-pressure compressors, is conducted through headers and large-size lines to Foxboro automatic volume controls, whence it is distributed to the wells. All gas is metered into and out of each well, with recording gauges. In general, more gas is taken from the wells than is put in, and this excess is discharged through a high-pressure pop-valve into the field supply system and is used for boilers and other fuel purposes. Diagram of the gas cycle is shown in Fig. 2.

When the gas is returned to the gasoline plant after having done its work in the wells, it contains about 1.2 gallons of gasoline per thousand cubic feet, as compared with a general Panhandle field average of about 0.88 gallons per thousand. There is no loss in gravity of crude; in fact, in some cases, crude produced on the gas-lift is of higher gravity than that formerly swabbed from the same well. Flowing through smaller lines, and reducing the gas-oil ratio, as with a gas-lift, delivers the oil at the surface at more nearly its natural gravity than does swabbing or other open-hole methods.

GAS to be injected is heated by a specially designed steam heater at each well. This heat is about dissipated at a point some 700 feet down in the hole, but it is in this section of the well that paraffin accumulation always is the heaviest. The heated gas not only helps



Recording gauges as used by Marland in gas-lift work, in Texas Panhandle

the paraffin trouble, but also heats up the crude before it flows out of the well.

Average gas-oil ratio of wells flowing with gas-lift will probably run around 1200 cubic feet per barrel. However, the Marland engineers look upon gas-oil ratio as a secondary consideration in their installation, as there is no waste of gas. Neither do they go far into the question of mechanical efficiency of the gas-lift. Their principal idea is to get the wells so adjusted that they will make the most oil and the least water at the lowest investment and lifting cost. They also point out that a high gas factor when the gas is introduced from the surface tends to hold the natural gas pressure in the sand, thus helping the well to maintain its fluid level. Average Panhandle wells have from 800 to 1000 feet of fluid in the hole, which puts the top of fluid column about 2000 feet below the surface.

THE gas-lift has been very successful in holding back water, and the Marland engineers look upon this as one of their chief accomplishments so far. They now have wells making dry oil in locations surrounded by wells making water, and they also have succeeded in stopping water intrusion in wells that did make water before the gas-lift was installed.

To accomplish this, it was necessary to make a special application of the gas-lift principle by a close study of each well. The problem consists of using the right-sized tubing, and of holding it at that point in the well where the weight of the column of fluid plus injected pressure through the tubing on top of the water plane creates a balance that prevents water from coming up through the sand and permits lateral travel of oil through the sand to the well. This balance is a critical one, as experiments have shown that a pound or two difference in pressure will allow water to come in or will hold it back.

The theory as to what takes place in the Panhandle wells where water intrudes is illustrated in a drawing with this article, Fig. 3. As the oil is drained from the sand in widening cone-shaped areas and pressure in the sand diminished, the water level slowly rises, and with swabbing is finally brought up to the point where it shows in the well. This continues until the well is making nothing but water, as shown in drawing No. 2. With gas-lift, an opposite effect is exerted on the water, and with proper balance it is held back.

AT present, Marland has 12 wells operating on gas-lift, out of about 70 producing wells in the field. Not all of these wells are connected to the main compressor plant, some being flowed with portable compressors. No definite plans have been adopted for construction of more compressor stations, but the work of putting all wells on gas-lift will be continued.

The 12 wells operating on gas-lift, comprising about one-sixth of the total number of wells, are producing about one-third of the company's total production. During December, when only seven wells were on gas, they produced about one-fourth of the total production.

As an example of results obtained, one well was making 1250 barrels of fluid on the swab, of which 44 per cent, or 550 barrels, were oil and the remainder water. After being put on gas-lift, with back-pressure control and proper tubing position, this well made 1223 barrels of oil and 345 barrels of water. Total fluid increased from 1250 to 1570 barrels, and percentage of water fell from 56 per cent to 22 per cent. Oil production was increased 122 per cent.

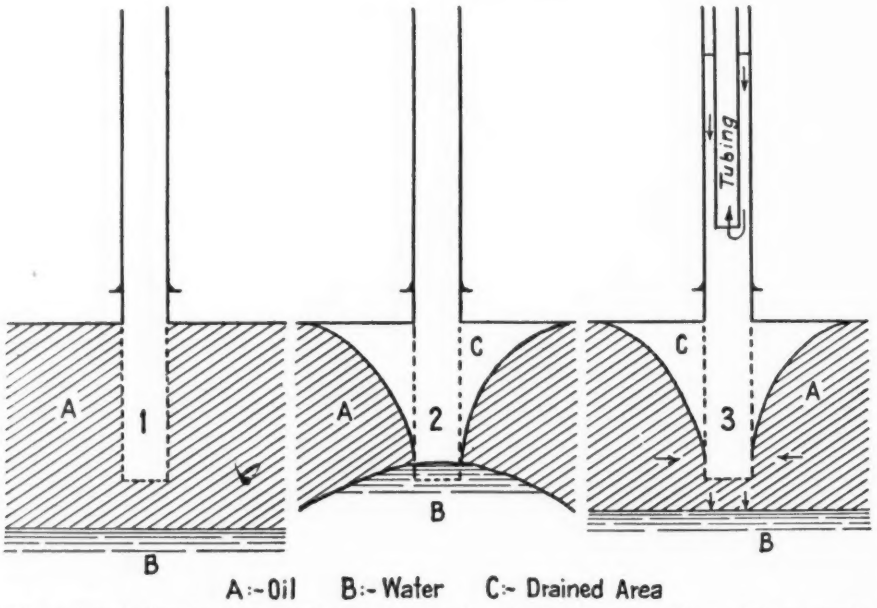


Fig. 3—Sketch showing three stages of production in a Panhandle well. No. 1—Original condition. No. 2—Swabbing condition showing water level and cone-shaped drainage area from which oil has been removed. No 3—Gas-lift condition showing how pressure from above holds back water and allows oil to flow laterally to well

Oklahoma Panhandle Has Oil Showing

(By Telegraph)

TULSA, Feb. 1.—The Oklahoma Panhandle is now the center of interest among producers because of an oil showing in Ramsey Brothers wildcat test in Cimarron county, the farthest west of the three Panhandle counties.

The well is their No. 1 State Land, in center northwest, northeast of 27-5 North-5 East, ten miles north of Boise City, the county seat. Depth of the well is 4096 feet and the hole has filled up 2500 feet with black oil testing 38 gravity at 60 degrees. The well is making some gas the amount not determined.

The formation in which oil was found is caving badly and there are from 150 to 200 feet of cavings in the hole, which is being cleaned out today and operators will either run a liner on lower five-inch casing to drill in. Casing is about 100 feet above the oil horizon.

Although definite correlation is not made, it is probable the oil horizon is well down into the Pennsylvanian. The well depth places the oil showing at about 100 feet below sea level.

This well is about 115 miles northwest of the center of the Hutchinson county field, in the Texas Panhandle. Production in that field is from the Permian formation, above the Pennsylvanian, and no oil has been found below sea level. The Ramseys have assembled a block of more than 200,000 acres in Cimarron county, probably one of the largest acreage blocks in Oklahoma's oil history. The well itself is on state land, of which Ramseys have about 50,000 acres in the vicinity.

They have started another well, known as No. 2 State Land in southeast corner of 4-5-6 East, 7 miles northeast of the well that is showing oil, and it is down to around 300 feet. Four other operations are under way in Cimarron County, none of which has gotten below 625 feet deep. As far as is known, there are no dry holes in the county. In Texas county, adjoining Cimarron to east, nine wells are drilling and several gas showings have been had.

Amos Ball Talks at Decatur Meet

DECATUR, ILL.—The annual sales meeting of the Decatur division of the Standard Oil Co. of Chicago, was held at the Orlando Hotel here on Jan. 13.

Amos Ball, general manager of the company, and H. A. Lewis, assistant general manager of the central division, attended from Chicago. Both delivered addresses. Talks were also made by J. H. Budde, manager of the Decatur division; G. F. Phillips, assistant to Mr. Budde; H. L. Porter, sales manager and L. Hanna, office manager.

Fall-Sinclair Trial Postponed

WASHINGTON, Jan. 29.—Trial of Harry F. Sinclair and Albert B. Fall for alleged conspiracy in the leasing of Teapot Dome naval petroleum reserve, has been postponed to April 25 because of Fall's recent illness. The trial was to have begun Feb. 2.

Refining Costs Add Only Fifth to Value Of All Products, Census Reports

WASHINGTON, Jan. 27

THE cost of turning crude oil at refineries of the country into the various refined products in 1925—manufacturing cost in other words—was only 20 per cent of the $2,373,178,000 value of total refinery output in that year, according to the Census of Manufactures of the U. S. Department of Commerce.

This value of $486,576,000 added by manufacture includes overhead and sales and advertising expense of refineries and apparently $104,484,602 paid in wages in refineries that year. This relatively low value added through process of manufacture is a concrete illustration of the competition existing in the refining branch of the oil business.

Cost of materials to the refiner, including fuel, electric power and containers, was $1,886,603,000 in 1925. With the value of $486,575,000 added through manufacture, the total value of $2,373,178,000 for refined products produced in that year is secured. This last figure is an increase of 32.3 per cent over total value of 1923, of 37.4 per cent over 1921 and 45.4 per cent over 1919. The census is taken biennially.

The number of establishments on which the 1925 census was taken was 358. This was a net loss of 24 plants from the number operating in 1923. Of the 382 refineries operating in the latter year, 69 have either gone out of business, consolidated with other plants or shut down before the 1925 census. On the other hand, 45 new plants had started up.

These 358 plants reporting in 1925 had 65,218 wage earners, a decrease of about 1500 from 1923. Wages paid were $104,484,000, not including salaried employes, a trifle larger than 1923. The 358 plants were rated at 406,101 horsepower, as compared with 391,154 for the 382 plants in 1923.

The production of gasoline increased from 7,332,329,194 gallons in 1923, valued at $876,732,346, to 10,702,877,654 gallons in 1925, valued at $1,215,897,264. These figures refer only to the gasoline produced by petroleum refineries. In addition, the Bureau of Mines reports the following production of "casing-head" (natural-gas) gasoline: For 1925, 1,104,900,000 gallons, valued at $117,000,000; for 1923, 816,226,000 gallons, valued at $77,268,000. The production of fuel oil increased from 11,976,396,147 gallons, valued at $345,666,436 in 1923, to 14,578,766,056 gallons, valued at $488,263,429. in 1925; and the output of lubricating oils increased during the same period from 1,150,653,387 gallons, valued at $204,494,849, to 1,356,971,112 gallons, valued at $251,497,008.

Of the three hundred and fifty-eight establishments reporting for 1925, 63 were located in Texas, 57 in California, 51 in Pennsylvania, 50 in Oklahoma, 19 in Kansas, 15 in Wyoming, 13 in Louisiana, 13 in Ohio, 10 in Kentucky, and the remaining 67 in 22 other States. In 1923 the industry was represented by three hundred and eighty-two establishments, the decrease to 358 in 1925 being the net result of a loss of 69 establishments are a gain of 45.

OF the 69 establishments lost to the industry, 45 went out of business prior to 1925, 23 were idle during the entire year, and 1 reported products valued at less than $5,000. (No data are tabulated at the biennial censuses for establishments with products under $5,000 in value.)

The kind, quantity and value of various oils is compiled in more detailed form, perhaps by the census of manufactures than by other sources, and the table giving this information for 1925 is published below:

	Gallons	Value
Gasoline (a)	10,702,877,654	$1,215,897,264
Naphtha ..	294,946,777	29,938,400
Benzine ...	41,714,476	4,992,842
Tops	215,947,696	12,117,350
Other	32,173,529	3,363,624
Illuminating oils	2,361,938,271	161,757,921
Fuel oils, total ..	14,578,766,056	488,263,429
Distillates.	1,202,334,599	51,648,060
Gas oils ...	1,812,596,473	79,599,742
Residual fuel oils	11,563,834,984	357,015,627
Lubricating oils total ..	1,356,971,112	251,497,008
Pale or paraffin	270,344,631	38,763,249
Red or neutral	526,073,343	91,976,864
Cylinder oils	205,465,675	47,045,150
Other, including compounded	236,272,331	44,989,816
Not reported by kind	118,815,132	28,721,929
Liquid asphaltic road oils	274,316,664	12,511,739
Partly refined oils sold for rerunning, total 1925 ..	1,497,878,826	65,305,061
Above fuel oil	787,402,238	
Fuel oil ...	692,440,284	
Below fuel oil	18,036,304	
Partly refined oils sold for rerunning, 1923	1,300,803,932	54,977,467
Acid oil	59,550,136	1,139,310
Greases:		
Petrolatum	13,862,225	3,559,207
Lubricating greases ..	26,301,450	8,262,744
Axle grease	5,656,586	2,098,676
Paraffin wax	89,557,164	30,510,343
Residuum or tar	131,170,898	5,964,368
	Short tons	
Asphalt other than liquid asphalt ...	3,593,883	30,460,927
Petroleum coke	885,600	6,419,598
Other refinery products (c)	.....	26,530,714
All other products, including receipts for contract work (d) ..	.....	12,587,489

Principal Materials Used	Barrels 1925 (42 Gallons)
Crude oil	737,563,645
Partly refined oils, purchased	57,797,099
Casing-head gasoline:	
Purchased	21,346,192
Extracted and used	1,948,547
Total	818,655,483

(a) Not including "casing-head" (natural-gas gasoline). The production of such gasoline is reported by the Bureau of Mines as follows: 1925, 1,104,900,000 gallons, valued at $117,000,000; 1923, 816,226,000 gallons, valued at $77,268,000.

(b) Not reported as such for 1923. Included in some cases under "Gasoline" and in other cases under "Partly refined oils."

(c) Still gas, oils in process, asphaltic paints, wax tailings, etc.

(d) Containers, crude oil and oil products sold in condition in which purchased, etc., and income from refining on toll.

Another Good Reason for Living in U. S. A.

WASHINGTON, Jan. 31.—Joy-riding in Madagascar or at Teheran may have its joys, but one of them is not in the price of gasoline. Retail price at Tananarivo, Madagascar, Dec. 31, 1926 was 79 cents per gallon, the highest price in the world on that date, according to price data in various countries compiled by the minerals section of the Department of Commerce.

Gasoline at Teheran, Persia was 71 cents; at Nairobi, British East Africa and at Johannesburg, British South Africa, it was 70 cents per gallon.

The lowest price of gasoline which prevailed at representative points in the world was 14 cents at Bucharest, Rumania.

Other points having high gasoline prices are: Bogota, Colombia, 69 cents; Guatemala City, Guatemala, 67 cents; La Paz, Bolivia, 62 cents; Tegucigalpa, Honduras, 59 cents; Jerusalem, 58 cents; Teneriffe, Canary Islands, 56 cents; Loanda, Angola and Belgrade, Yugoslavia, 54 cents; Durban and Cape Town both of British South Africa, and Rangoon, Burma, 53 cents; Seoul, Korea, 52 cents; Chosen, 51 cents. Tunis, Tunisia, had a retail price of 24 cents.

Prices at representative cities were: London, 28 cents; Paris, 32 cents; Berlin, 28 cents; and Vienna, 30 cents.

Late Crude Change

LOUISVILLE, Feb. 1.—On Feb. 1 Stoll Oil Refining Co. reduced Oil City, Ky. crude in Stoll pipe lines 15 cents, to $2.20 per barrel.

Jones Predicts New Peak in Production in 1927

OIL CITY, Pa., Jan. 29.—George H. Jones, chairman of the board, Standard Oil Co. of New Jersey, predicted at an address before the Oil City Kiwanis club, that production in the United States in 1927 may exceed 800,000,000 barrels, an increase of more than 30,000,000 barrels over the 1926 production of crude.

Mr. Jones outlined the industrial history of the work. Concerning petroleum he said:

"Most of the oil industry of the world is right here in the United States. Soon after Drake drilled his first well in 1859, there were anxious inquiries as to whether the huge supply could be used. The progress of the industry has been phenomenal. Soon after the Drake well was brought in the greatest civil war the world has ever known absorbed men's thoughts and during that period the oil production was only a few million barrels annually; but after the close of the war, with thousands of men released from the army, there was a great impetus and production steadily increased. When I came to your city in 1890, the production was but 45,800,000; in 1900 the production was 63,620,000 barrels. In 1926, 768,000,000 barrels and perhaps in 1927 it will go over 800,000,000. We are producing about 70 per cent of the world's oil.

"The investment in the oil industry has more than kept pace with production in 1900—in 1900 it was perhaps only $400,000,000, and it is now over $10,000,000,000. Just another word to emphasize the magnitude of the petroleum industry. We have in our country 16,000,000 bath tubs, 17,000,000 telephones and 22,500,000 motor cars, and over 300,000,000 barrels of gasoline are required to drive them.

Michigan Jobber Handles Alcohol in Carlots

MUSKEGON, MICH., Jan. 29.—Cardinal Petroleum Co., Muskegon, Mich., made a profitable venture last fall by installing a 10,000-gallon tank for alcohol, enabling it to buy in tank carlots. Now with winter only half gone the company has turned its stock twice. The company ranks among the largest alcohol dealers in Michigan, has a tank truck operating exclusively in the alcohol traffic and serves other oil dealers who get their supplies in their own drums.

The truck is a small International and carries a 300-gallon tank of three compartments. The truck is not busy all the time, but if it were not for the alcohol trade it would be idle because in this climate the gasoline trade falls so much in winter that almost every jobber has to put one or more of his trucks on jacks from fall to spring unless he has a good domestic fuel oil market.

Cardinal Petroleum Co. did not go into the furnace oil business extensively. One large gasoline truck is taken out of the gasoline trade each December and thrown into the so-called "dirty service", dispensing distillate until spring, when it is cleaned and restored to the gasoline fleet. But the little alcohol truck handles motor oils in summer, for in southwest Michigan the influx of summer tourists come to play, the trade justifies handling motor oil in tank trucks.

Any oil man who retails denatured alcohol for 80 cents a gallon through his filling stations and sells it to garages and privately owned service stations at a figure that enables them to sell profitably at the same price, will be able to calculate the profit on a carload. Cardinal officials point out that an alcohol trade must be well in hand before a jobber can afford to buy extensively, for it is a dangerous product in which to overbuy. It is more costly than gasoline and almost impossible to sell in its off-season.

General Buys Site For Large Refinery

LOS ANGELES, Jan. 28.—Negotiations were concluded this week for the purchase of a tract of about 900 acres just north of Torrance in Los Angeles county by the General Petroleum Corp. as a refinery site. The sale is said to have involved about $2,500,000. It is understood that General Petroleum officials have under consideration the removal of their present refinery at Vernon, in the industrial district of Los Angeles, to the new site at Torrance, in addition to much new equipment.

The present refining capacity of the General Petroleum Corp. plants located at Vernon, Lebec and Olinda is listed at 75,000 barrels, 60,000 barrels of which is at the Vernon plant.

Central Ohio Jobbers Organize

WOOSTER, O., Jan. 31.—Officers of the Four Square Petroleum Club, which was organized here on Jan. 10 by oil jobbers of Ashland, Wayne, Holmes and Richland counties, are: H. L. Avery, Avery Oil & Grease Co., Ashland, president; R. M. Lamb, Knox Oil Co., Mansfield, vice president; and R. K. Shoolroy, Arrow Oil Co., Wooster, secretary and treasurer.

Eighteen companies attended the first meeting. W. A. Milne, executive secretary of the Ohio Petroleum Marketers Association, Columbus, pointed out the value of such an organization. The club was formed to promote better understanding among oil jobbers of the territory and to discuss problems of mutual interest, according to Mr. Shoolroy.

Meetings will be held regularly the fourth Monday of each month.

CHICAGO, Jan. 29.—Otto J. Koch, salesman in the refined oil department of the H. H. Cross Co., Chicago office, underwent a major operation Jan. 24 at St. Luke's hospital here. Mr. Koch is reported to be improving steadily.

Pipe Lines and Tankage Building in Texas

Staff Special

HOUSTON, Jan. 29.—The Gulf interests are building an 8-inch pipe line about 70 miles from the McElroy ranch field, along the Crane-Upton county boundary, to Midland, Tex., on the T. & P. railroad. The Gulf is building four 80,000-barrel tanks at Midland and will install loading racks. A part of the Gulf's production from the unit controlled McElroy pool is now being handled south to the Hurdle district through the gathering system of the Humble Pipeline Co.

Eventually the Gulf may connect up its McElroy ranch-Midland system with its network of pipe lines serving the general Ranger territory, about 200 miles east of Midland.

There is little tank construction in the territory west of San Angelo outside of the Gulf's activity at Midland; the building of one 55,000 barrel tank of the Southern Crude Oil Purchasing Co., in sec. 4, block B-12, Winkler county, and the construction of eight more 55,000 barrel tanks of the Humble Oil & Refining Co. One of the Humble's tanks under construction is on the Ira L. Yates ranch, in eastern Pecos county, and the other seven are in sec. 65, block 35, H&TC survey, Upton County.

Phillips Petroleum Co. is building one 55,000 barrel tank in sec. 19, block 19, southwestern Jones county, where it discovered the Noodle Creek field several months ago. The Phillips, Marland, Atlantic and Midwest companies control present production in the Noodle Creek area, which is capable of about 3000 barrels daily from a half dozen wells.

Jan. 26 production of the Noodle Creek field was 2758 barrels, including 1165 barrels produced in 16 hours by Marland's No. 3 Mason well. The last is a new completion at the 2500-foot sandy lime level. It and the Phillips discovery well on the Winters tract were the field's two best completions. The discovery well made 945 barrels daily when completed several months ago.

Miller Creditors Agree To Lease Refineries

CLEVELAND, Jan. 29.—The Wichita Falls, Tex., plant of the Miller Petroleum Co., Kansas City, has been leased to Reece S. Allen and the Humboldt, Kan., plant to the Atlas Petroleum Co. These leases were agreed to at a joint meeting of the stockholders, directors and creditors of the company at a meeting in December.

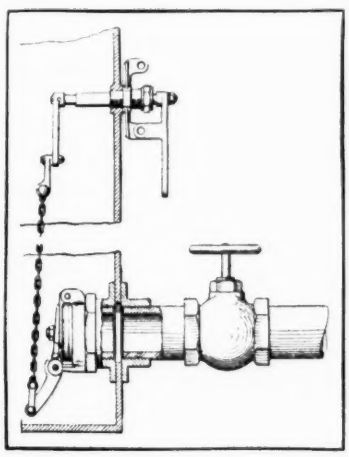
The trustees for the bondholders have entered into a written agreement not to foreclose on the bonds for one year or as long as the Wichita Falls refinery is under lease to Mr. Allen, according to J. H. Miller, president of the company.

It's New!

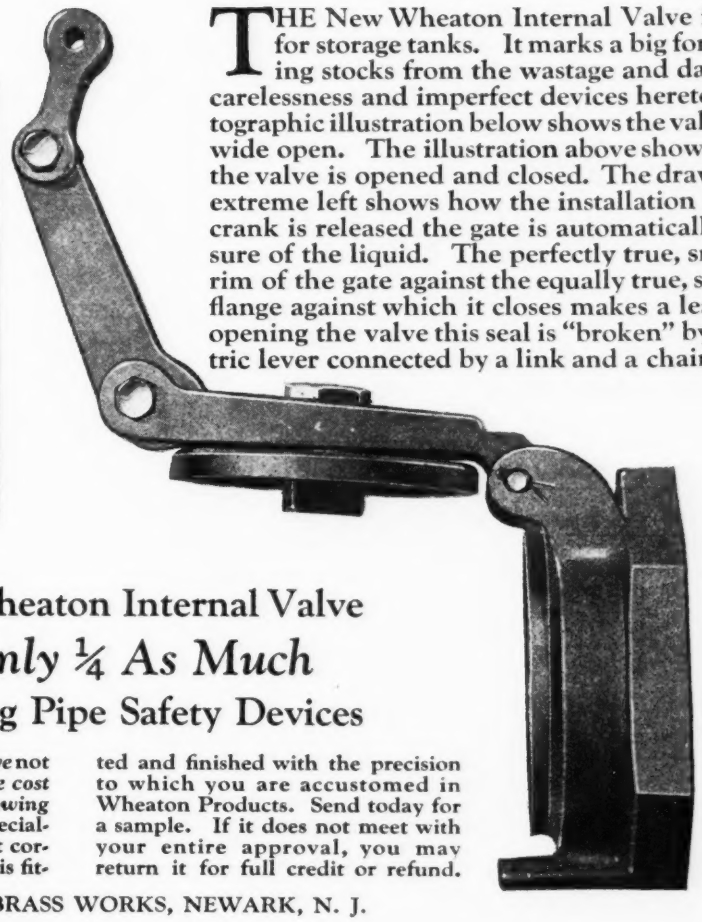
An Internal Valve For Storage Tanks

—*It Assures Utmost Safety*

This photograph shows the crank by which the new Wheaton Internal Valve is opened and closed. The crank can be locked in either position.



THE New Wheaton Internal Valve is especially designed for storage tanks. It marks a big forward step in protecting stocks from the wastage and dangers resulting from carelessness and imperfect devices heretofore used. The photographic illustration below shows the valve as it appears when wide open. The illustration above shows the crank by which the valve is opened and closed. The drawing in the box at the extreme left shows how the installation is made. When the crank is released the gate is automatically closed by the pressure of the liquid. The perfectly true, smooth surface of the rim of the gate against the equally true, smooth surface of the flange against which it closes makes a leak-proof seal. When opening the valve this seal is "broken" by means of the eccentric lever connected by a link and a chain to the crank above.



The New Wheaton Internal Valve *Costs Only ¼ As Much* As Old Swing Pipe Safety Devices

The *new Wheaton Internal Valve* not only assures *safety* but its *whole cost is less than ¼ the cost of the old swing pipe device.* It is built of a special-analysis brass alloy that will not corrode or crystallize. Every part is fitted and finished with the precision to which you are accustomed in Wheaton Products. Send today for a sample. If it does not meet with your entire approval, you may return it for full credit or refund.

Leak-Proof Self-Sealing

The photograph on the left shows the valve after the gate has been raised. Sizes: 2, 2½, 4 and 6 inches. Larger sizes built to specifications.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

Wheaton

FAUCETS · VALVES · JOINTS · COUPLINGS · FILLERS · NOZZLES · FITTINGS

Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

Mid-Continent Refinery Operations Week Ended Jan. 28 (By Telegraph)

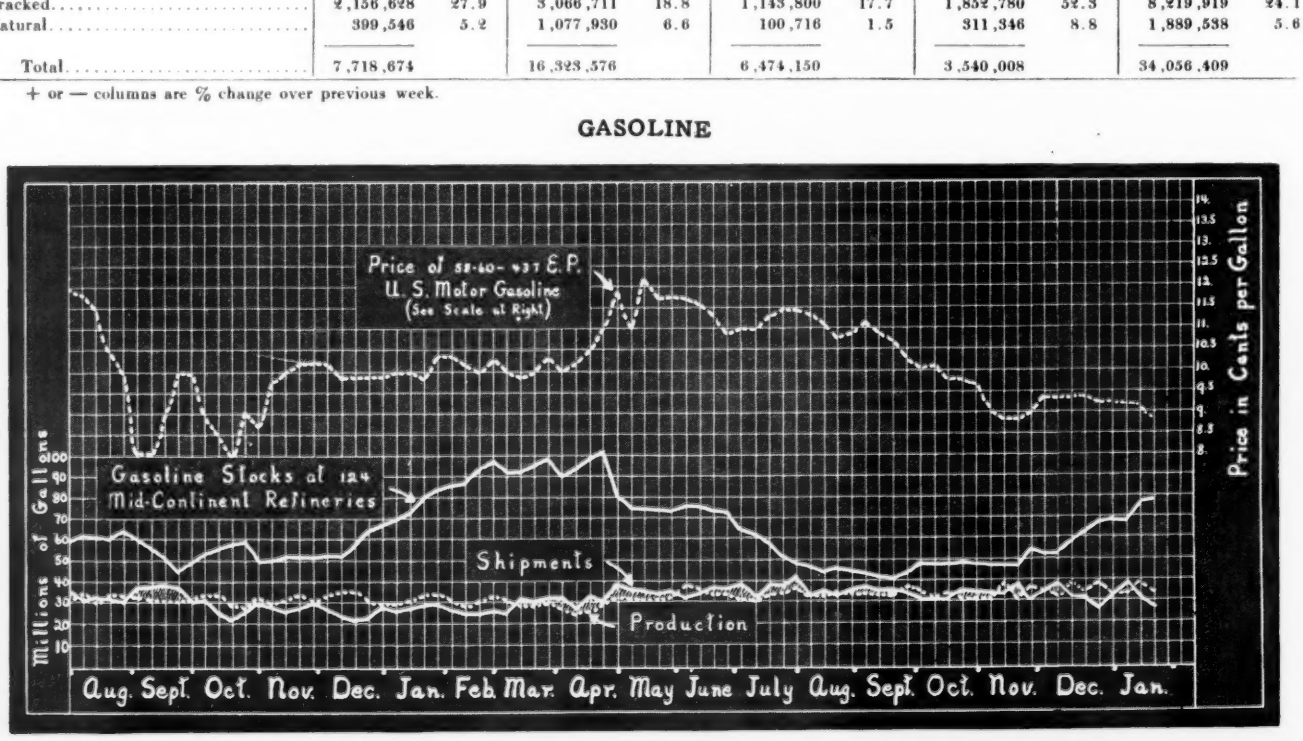
	Kansas	Oklahoma	North and Cent. Texas	North La.-Ark.	Total Week Ended Jan. 28	Total Week Ended Dec. 31
Plants Reporting	23	46	41	14	124	124
Crude Cap. (Bbls.)	98,200	165,900	144,300	53,700	462,100	462,100
Cracking Capacity	21,000	45,800	15,750	20,200	102,750	102,750
Da. Av. Crude Runs	51,472 — 4.8	106,588 + 0.9	61,773 —10.2	48,141 — 8.9	267,974 — 4.7	274,908
Da. Av. Other Oils	6,118 + 73.9	1,389 —47.4	7,360 +67.9	1,076 +11.3	15,943 +38.5	14,857
GASOLINE—Gallons						
Stocks Jan. 21	11,429,809	47,102,060	12,360,431	2,804,060	73,696,360	61,052,652
Prod. 1-21 to 1-28	7,728,675 — 5.5	26,328,576 — 5.8	6,474,150 —10.2	3,540,008 — 9.8	34,056,409 — 7.0	34,038,690
Ship. 1-21 to 1-28	7,691,780 + 1.8	12,353,890 — 6.2	5,321,985 —22.0	3,087,627 — 9.9	28,455,282 — 8.1	28,334,640
Stocks Jan. 28	11,456,704 + 0.2	51,071,746 + 8.4	13,512,596 + 9.3	3,256,441 +16.1	79,297,487 + 7.6	66,756,702
Ratio Sales to Prod	99.7%	75.7%	82.2%	87.2%	83.6%	83.2%
KEROSENE—Gallons						
Stocks Jan. 21	3,098,081	6,129,082	1,858,311	1,158,100	12,243,574	10,887,831
Prod. 1-21 to 1-28	1,762,096 + 26.4	2,681,561 +12.0	1,517,576 +12.6	611,155 +33.1	6,572,388 +17.5	6,263,735
Ship. 1-21 to 1-28	1,479,478 — 9.9	2,568,451 + 4.2	1,170,543 —20.9	774,361 +54.3	5,992,833 — 1.5	4,615,396
Stocks Jan. 28	3,380,699 + 9.1	6,242,192 + 1.8	2,205,344 +18.7	994,894 —14.1	12,823,129 + 4.7	12,536,170
Ratio Sales to Prod	84.0%	95.8%	77.1%	126.7%	91.2%	73.7%
STOVE DISTILLATE—Gallons						
Stocks Jan. 21	2,701,151	4,315,428	1,115,311	56,918	8,188,808	10,239,350
Prod. 1-21 to 1-28	625,452 — 21.5	886,956 +34.8	312,420 + 6.5	60,228 —16.3	1,885,056 + 3.6	2,197,950
Ship. 1-21 to 1-28	1,213,275 — 21.9	907,770 — 2.3	355,076 —34.4	72,500 —55.4	2,548,621 —20.0	2,124,258
Stocks Jan. 28	2,113,328 — 61.8	4,294,614 — 0.5	1,072,655 — 3.8	44,646 —21.6	7,525,243 — 8.1	10,313,051
Ratio Sales to Prod	194.0%	102.3%	113.7%	120.4%	135.2%	96.6%
GAS OIL—Gallons						
Stocks Jan. 21	3,882,302	30,914,350	9,603,977	2,920,195	47,320,824	47,486,120
Prod. 1-21 to 1-28	1,537,192 + 17.8	1,929,031 — 3.3	1,268,282 +33.5	1,937,170 —29.0	6,671,675 — 4.4	8,453,943
Ship. 1-21 to 1-28	1,838,316 +106.4	2,176,596 — 8.1	1,239,330 —21.8	1,780,933 —33.7	7,035,175 — 6.6	8,986,662
Stocks Jan. 28	3,581,178 — 7.8	30,666,785 — 0.8	9,632,929 + 0.3	3,076,432 + 5.3	46,957,324 — 0.8	47,971,401
Ratio Sales to Prod	119.6%	112.8%	97.7%	91.9%	105.4%	106.1%
FUEL OIL—Gallons						
Stocks Jan. 21	7,911,437	52,811,557	11,281,518	6,877,658	78,882,170	95,821,151
Prod. 1-21 to 1-28	4,999,791 — 3.4	6,537,318 — 6.9	8,441,505 + 0.5	7,769,366 + 0.4	27,747,930 — 2.1	28,466,543
Ship. 1-21 to 1-28	5,288,522 — 9.2	769,066 —11.5	8,086,383 — 0.5	7,359,202 —14.1	28,383,173 — 8.9	34,763,086
Stocks Jan. 28	7,622,706 — 3.6	51,699,809 — 2.1	11,636,640 + 3.1	7,287,822 + 6.0	78,646,977 — 0.8	89,524,608
Ratio Sales to Prod	105.8%	117.0%	95.8%	94.7%	102.3%	122.1%

Gasoline Produced by Various Methods, Week Ended Jan. 28

	Kansas	% of Total	Oklahoma	% of Total	Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run	5,162,501	66.9	12,178,935	74.6	5,229,634	80.8	1,375,882	38.9	23,946,952	70.3
Cracked	2,156,628	27.9	3,066,711	18.8	1,143,800	17.7	1,852,780	52.3	8,219,919	24.1
Natural	399,546	5.2	1,077,930	6.6	100,716	1.5	311,346	8.8	1,889,538	5.6
Total	7,718,674		16,323,576		6,474,150		3,540,008		34,056,409	

+ or — columns are % change over previous week.

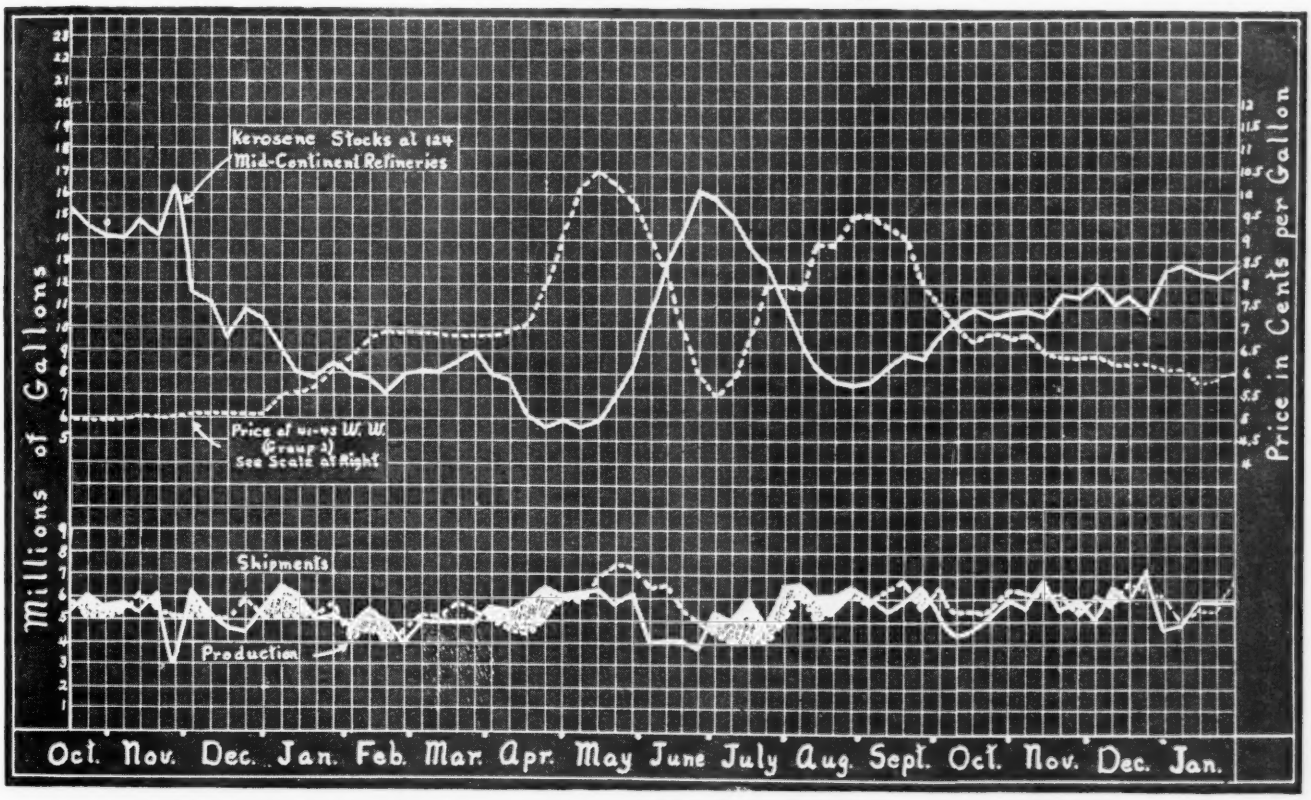
GASOLINE


Price of 52-60- 437 E.P. U. S. Motor Gasoline (See Scale at Right)
Gasoline Stocks at 124 Mid-Continent Refineries
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan.

Barometer of Mid-Continent Refinery Market—Week Ending Jan. 28

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

KEROSENE


Kerosene Stocks at 124 Mid-Continent Refineries
Price at wells W. W. (Group 2) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan.

Bad Weather Causes Gasoline Stocks to Grow

Staff Special—By Telegraph

TULSA, Feb. 1

INCLEMENT weather in the Mid-Continent marketing territory reduced gasoline shipments last week, according to reports to National Petroleum News from 124 Mid-Continent refiners. Shipments fell to 28,455,282 gallons, approximately 2,500,000 gallons under the total for the week ended Jan. 21. Production kept pace with the fall in shipments, however, but stocks were increased 5,600,000 gallons to 79,297,487 gallons on Jan. 28.

Stocks of gasoline are still under stocks a year ago. On Jan. 29, last year, the same group of plants held 83,156,281 gallons. Shipments of gasoline for that week totaled only 25,031,526 gallons.

The reduction in production of gasoline was due to a reduction of 13,000 barrels daily average in crude charged to stills. Kansas refiners reduced runs 2600 barrels while north Texas refiners cut runs 7000 barrels daily average. The Arkansas-Louisiana group reduced charges 4000 barrels but the Oklahoma refiners increased charges approximately 1000 barrels daily average. Due to a reduction in other oils charged Oklahoma plants were able to show a reduction in gasoline production of 5.8 per cent when compared with the previous week's production. Kansas refiners had a reduction of 5.5 per cent, Texas plants 10.2 per cent and Arkansas-Louisiana plants 9.8 per cent.

Stocks of kerosene were increased last week approximately 600,000 gallons. Shipments were virtually unchanged over the preceding week, but production advanced approximately 1,000,000 gallons. Oklahoma refiners increased shipments but were still unable to move their entire production. The Arkansas-Louisiana group moved more than its production.

Stove distillate shipments fell 600,000 gallons. Production was stationary. Shipments were still considerably above production, however, with the result that stocks were reduced approximately 660,000 gallons. For the four weeks ended Jan. 28, distillate stocks have outstripped production by 2,787,808 gallons.

Production of distillates has remained fairly constant each week at around 1,800,000 gallons except for the week ended Jan. 14, when production was boosted to 2,098,000 gallons. All areas have shared in the stock reduction although for last week Oklahoma was the lowest in the ratio of sales to production. Kansas refiners' shipments last week were practically twice as large as their production.

Gas oil stocks continued to be reduced although Texas and Arkansas-

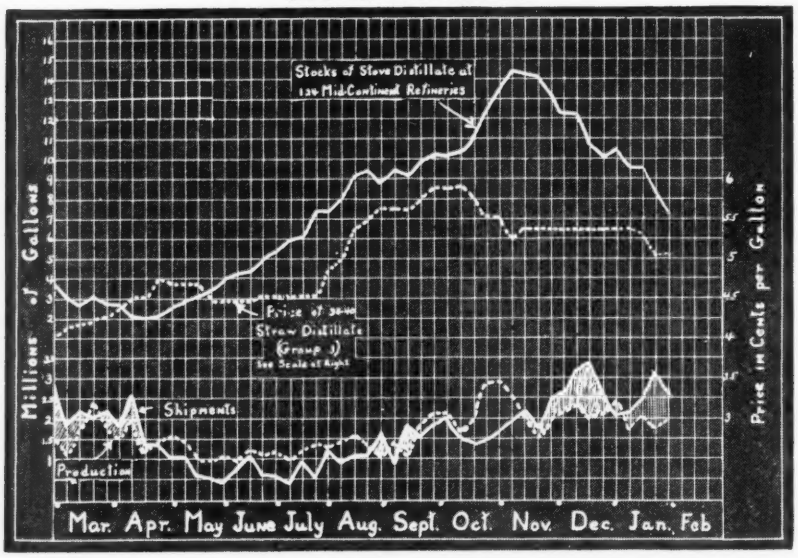
Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Jan. 28. Change in stocks figured from Dec. 31.

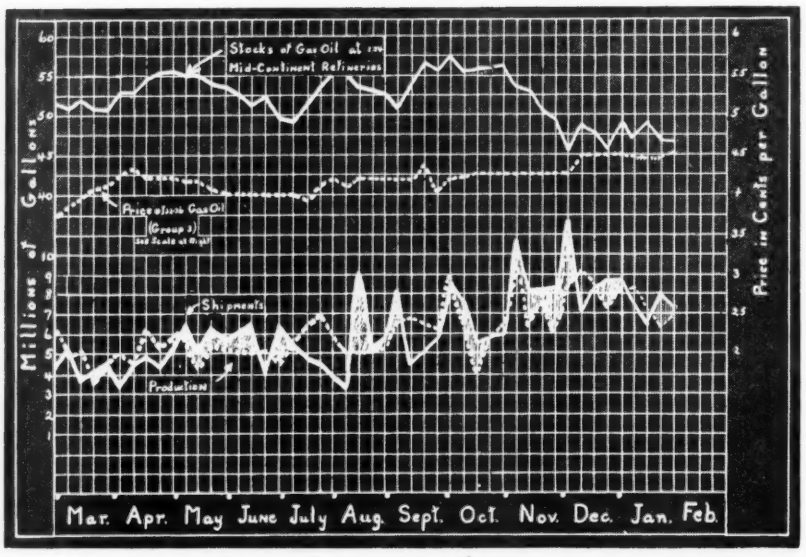
	Gallons
Gasoline	
Production	136,889,459
Shipments	124,348,674
Net change in stocks	+12,540,785
Ratio sales to production	90.8%
Kerosene	
Production	23,215,534
Shipments	22,928,575
Net change in stocks	+286,959
Ratio sales to production	98.8%
Stove Distillate	
Production	7,662,666
Shipments	10,450,474
Net change in stocks	—2,787,808
Ratio sales to production	136.4%
Gas Oil	
Production	28,983,275
Shipments	28,997,352
Net change in stocks	—14,077
Ratio sales to production	100.05%
Fuel Oil	
Production	111,133,818
Shipments	122,411,449
Net change in stocks	—11,277,631
Ratio sales to production	110.1%

Barometer of Mid-Continent Refining Market—Week Ending Jan. 28

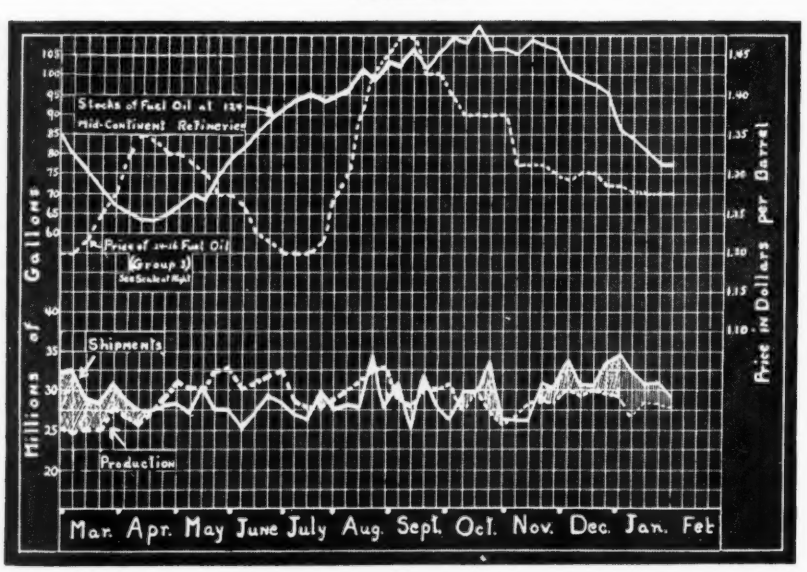
STOVE DISTILLATE


Stocks of Stove Distillate at 124 Mid-Continent Refineries
Price of 30-60 Straw Distillate (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb.

GAS OIL


Stocks of Gas Oil at 124 Mid-Continent Refineries
Price of 35-40 Gas Oil (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb.

FUEL OIL


Stocks of Fuel Oil at 124 Mid-Continent Refineries
Price of 20-28 Fuel Oil (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Dollars per Barrel
Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb.

Louisiana refiners did not ship their production for the week. Stocks in the entire field were reduced 400,000 gallons. Production was reduced 300,000 gallons while shipments fell off 500,000 gallons.

For the second time since the middle of November, fuel oil stocks failed to be reduced more than 1,000,000 gallons last week. The reduction amounted to 640,000 gallons. The other time stocks were reduced 900,000 gallons. A drop of approximately 2,700,000 gallons in shipments was recorded for the week while production fell about 600,000 gallons. For the four weeks stocks have been reduced 11,277,631 gallons. With total stocks on hand at 78,246,977 gallons the group of reporting plants show 25,000,000 gallons less fuel oil in storage than they had on Jan. 29, 1926.

United States Has Car for Every 5 Persons

CLEVELAND, Jan. 29.—Automobile registration figures compiled by the B. F. Goodrich Rubber Co., Akron, O., total 22,273,643 cars and trucks for 1926, a total 250,428 more than the Automotive Industries compilation of registrations published in National Peroleum News for Jan. 26, due probably to the use of some estimates where actual figures were unavailable when Goodrich made its compilation. In an analysis of the figures by Goodrich's tire division, it is said:

"Florida's 1926 registration shows a motor vehicle for every 2.2 persons, the highest of any state showing. California shows a car for every 2.4 persons.

"Taking the registration total and dividing it into the estimated 1926 census totals for the United States shows that there is one motor vehicle for every five inhabitants. Dividing the square mile area of the country into the registration figure shows a little better than seven motor cars to every square mile.

"The automotive industry remains first in rank among all business enterprises, based on the value of its finished products. The estimated wholesale value of the products of the motor vehicle and allied industries approximates $4,500,000,000.

"A continuation of conservative policies by manufacturers in establishing production schedules will insure another satisfactory year for the automotive industry even though the total volume of sales of both complete units and accessories may be slightly lower than in 1926.

"Fundamental business factors are sound. The use of the motor vehicle as a medium of transportation is on the increase with more buses and more trucks going into use every day. Over a half million miles of surfaced highways today forms a veritable network of motor transportation lines over the country."

There has never been a failure to extinguish a burning tank of oil or gasoline where Foamite *Protection was designed, installed, and maintained under the supervision of Foamite-Childs Engineers*

Through the improved Foamite *Vapor Proof Mixing Chamber, the standard* Foamite *System delivers tough, upstanding Firefoam in adequate quantity and at the correct rate of flow*

Highest development of the foam fire-fighting principle

Foamite *equipment in forms adequate for controlling every type and size of oil fire*

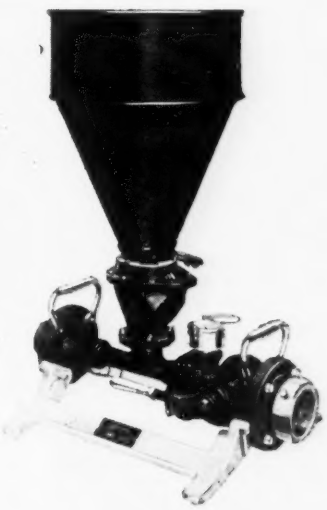
THE majority of oil operators today recognize fire protection as a job for specialists. Time has proven the danger and the high cost of experimenting with unproved fire-extinguishing methods or appliances.

For this reason, most of the leading oil companies in America and abroad are now safeguarded by *Foamite* Protection, in which the foam method of controlling fire has reached its highest development.

Whether applied to the largest storage tanks, or to the lesser fire hazards in and around refineries, bulk storage stations, stills, pipe lines — *Foamite* equipment has proven its ability to kill any type of fire in the shortest time and with the least disturbance of business routine.

Foamite-Childs fire protection engineers will survey your property and recommend the type of equipment that experience with actual fires has shown to be most dependable for your particular hazards.

FOAMITE-CHILDS CORPORATION
Fire Protection Engineers and Manufacturers
256 Turner Street, Utica, N. Y.
Sales and Engineering Representatives located near all the principal oil producing and refining centers



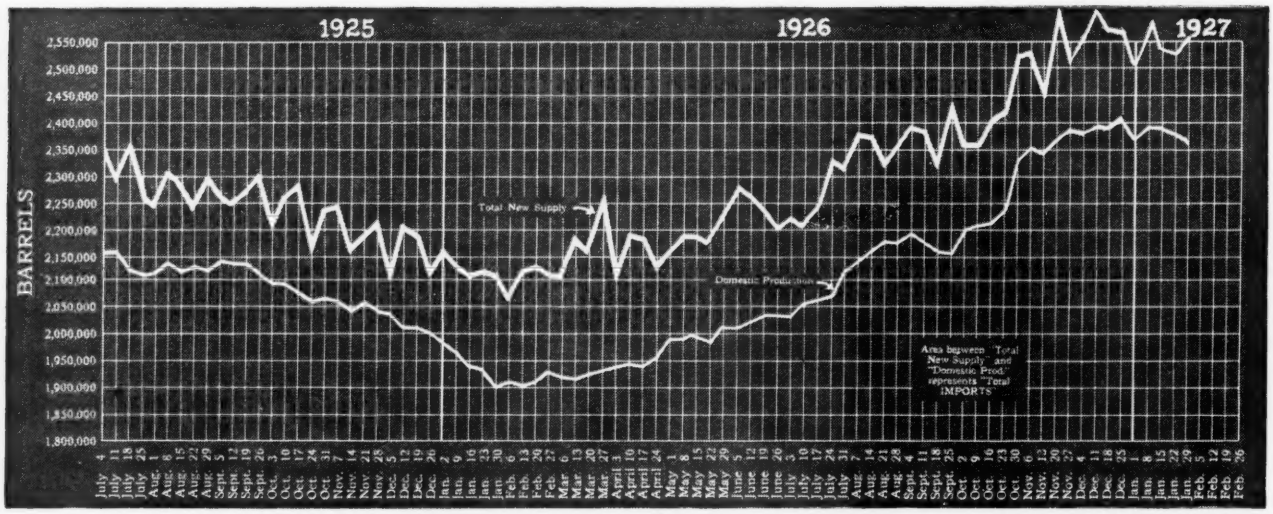
The new improved Foamite *Portable Foam Generator, highly effective as a "second-line defense" to back up first-aid equipment. Attached to any hose line where pressure is sufficient, the Portable Generator gives a continuous stream of high-quality foam by the automatically regulated mixture of dry chemical compound and flowing water*

Foamite-Childs Protection

A Complete Engineering Service

Against Fire

Daily Average Crude Oil Production and Imports



Daily average gross output of United States, by fields, for week ending with dates below, as compiled by American Petroleum Institute

Production Summary

	Jan. 29	Jan. 22
Production east of Rockies	1,722,950	1,732,050
Decrease		9,100
Total Production in U. S.	2,370,350	2,388,650
Decrease		18,300
Crude Oil Imports	194,000	145,143
Increase		48,857
Total Crude Supply	2,564,350	2,533,793
Increase		30,557

OKLAHOMA

	Jan. 29	Jan. 22
North Braman	9,050	10,350
South Braman	4,300	4,300
Blackwell	4,100	4,150
Hubbard	7,150	7,400
Thomas	1,800	1,850
Tonkawa	26,350	26,350
Garber	18,800	19,150
Burbank	47,850	47,250
Osage, outside Burbank	36,050	36,200
Watchorn	2,700	2,700
Cushing	21,400	21,500
Yale Jennings	12,400	12,450
Davenport	3,950	4,400
Bristow-Slick	27,400	27,450
North Okmulgee	17,200	17,250
Lyons-Deaner	4,400	4,400
Stroud	1,650	1,600
Cromwell	13,400	13,550
Papoose	7,850	8,100
Wewoka	21,200	23,000
Seminole	196,400	181,000
Duncan district	7,050	6,900
Graham	9,000	9,000
Fox	1,950	1,900
Healdton	15,000	15,000
Scholem Alechem	11,700	11,200
Hewitt	10,400	10,400
Earlsboro	9,100	9,150
Others	59,650	59,700
Total Oklahoma	607,250	597,650
Total Increase		9,600

KANSAS

	Jan. 29	Jan. 22
Greenwood County	43,600	43,900
Florence-Covert	1,950	1,950
Peabody-Elbing	3,900	3,950
Eldorado-Towanda	13,250	13,300
Augusta-Fox-Bush	4,800	4,800
Rainbow Bend	3,100	3,150
Russell	3,650	3,900
Churchill	12,500	13,650
Others	29,000	29,200
Total Kansas	115,750	117,800
Total Decrease		2,050

NORTH LOUISIANA

Homer	5,250	5,250
Haynesville	8,350	8,350
Caddo, light	10,100	9,950
Caddo, heavy	3,800	3,600
De Soto, Red River	3,900	4,050
Elm Grove	600	650
Bellevue	1,550	1,550
Cotton Valley	6,550	6,550
Urania	13,250	13,600
Total North Louisiana	53,350	53,550
Total Decrease		200

ARKANSAS

	Jan. 29	Jan. 22
El Dorado	6,150	6,150
Smackover, light	12,050	12,450
Smackover, heavy	101,850	103,150
Stephens	1,450	1,400
Nevada	1,850	1,800
Lisbon	5,300	5,600
Others	300	
Total Arkansas	128,950	130,850
Total Decrease		1,900

TEXAS (OUTSIDE GULF COAST)

Panhandle District

Hutchinson County	111,150	115,350
Gray County	5,600	6,400
Carson County	8,900	10,100
Wheeler County	1,750	1,500
Others	50	50
Total Panhandle Dist.	127,450	133,400
Decrease		5,950

North Texas

Burkburnett	14,700	14,650
Electra	16,050	16,150
Iowa Park and K-M-A	5,000	5,050
Wilbarger	15,150	15,350
Archer County	34,350	34,700
Montague-Cooke	13,400	13,700
Others	1,050	1,050
Total North Texas	99,700	100,650
Decrease		950

West Central Texas

Stephens County	10,350	10,350
Eastland-Desdemona	5,850	5,850
Brown County	22,800	17,400
Coleman County	1,700	1,700
Callahan County	6,300	6,250
Shackelford County	14,600	14,900
Young County	9,150	8,950
Throckmorton County	4,250	2,850
Palo Pinto County	450	450
Jones County	2,150	2,050
Mitchell-Scurry Counties	3,850	3,950
Howard County	2,300	2,350
Reagan County	28,750	28,650
Crane and Upton Counties	31,300	29,600
Others	3,200	3,200
Total W. Central Tex.	147,000	138,500
Increase		8,500

East Central Texas

Mexia	11,700	11,750
Currie	700	700
Richland	1,400	1,400
Wortham	5,700	5,750
Corsicana-Powell	22,400	23,600
Nigger Creek	8,100	8,400
Total E. Central Tex.	50,000	51,600
Decrease		1,600

Southwest Texas

Luling	17,800	17,950
Lytton Springs	2,850	2,850
Somerset	1,900	1,900
Laredo District	15,600	15,600
Piedras Pintas	300	300
Others	700	700
Total Southwest Texas	39,150	39,300
Decrease		150
Total Texas (Outside Gulf Coast)	463,300	363,450
Decrease		150

GULF COAST

Coastal Texas

	Jan. 29	Jan. 22
West Columbia	11,300	12,800
Damon Mound	950	850
Big Creek	2,150	2,300
Boling	2,350	2,050
Blue Ridge	2,700	2,700
Pierce Junction	6,350	7,950
Humble	4,300	4,300
Goose Creek	7,950	7,950
South Liberty	4,450	4,650
Hull	17,600	18,850
Saratoga	1,150	1,200
Batson	1,600	1,650
Sour Lake	4,800	4,650
Spindletop	70,100	80,600
Orange County	6,500	6,500
Others	3,400	3,350
Total Coastal Texas..	147,650	162,350
Decrease		14,700

Coastal Louisiana

Vinton	5,800	5,800
Lockport	3,250	3,200
Evangeline	1,200	1,450
Edgerly	600	600
Others	1,650	2,250
Total Coastal Louisiana	12,500	13,300
Decrease		800
Total Gulf Coast	160,150	175,650
Decrease		15,500

ROCKY MOUNTAIN

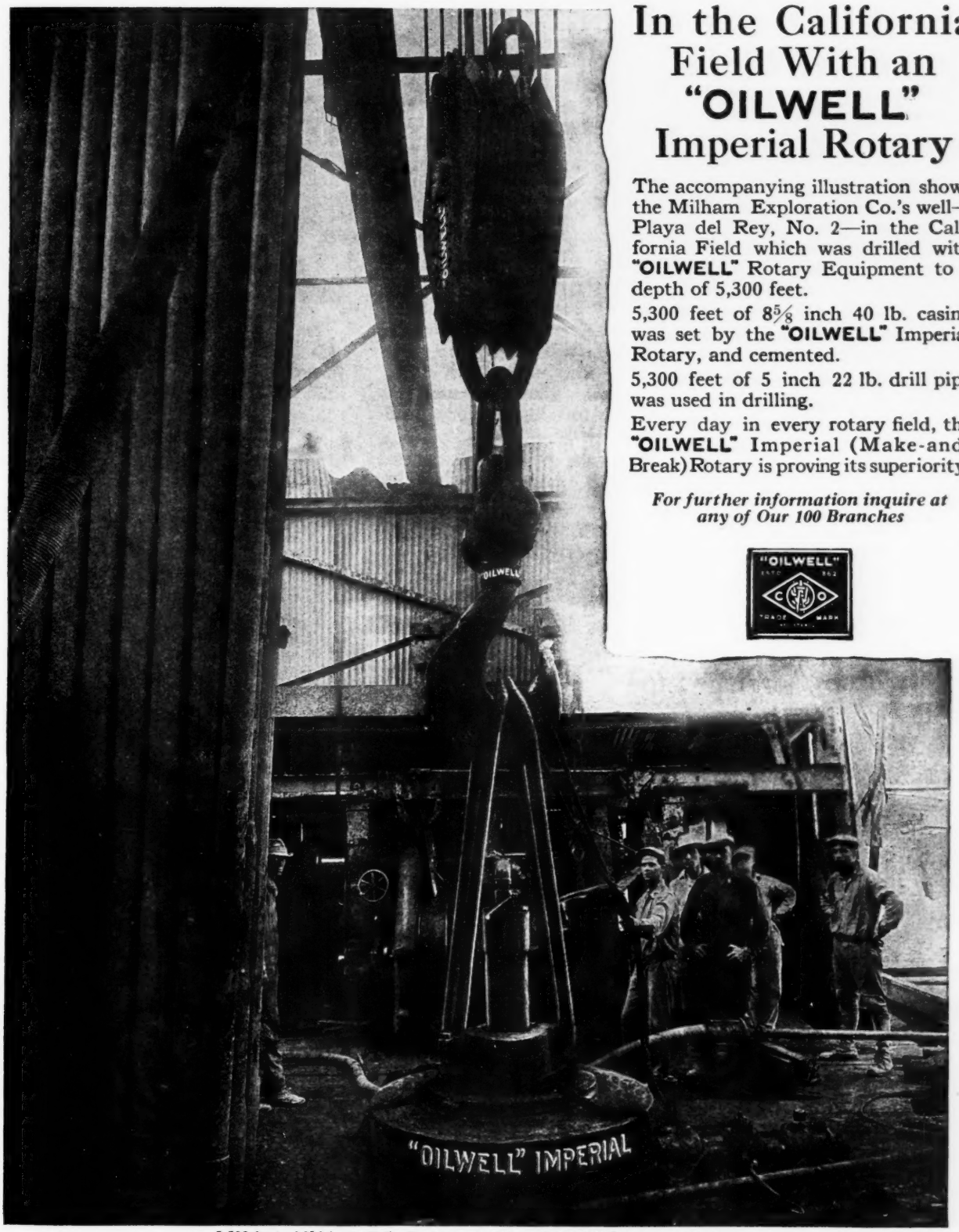
Wyoming

	Jan. 29	Jan. 22
Salt Creek	47,200	42,550
Grass Creek	2,650	2,850
Elk Basin	700	750
Big Muddy	2,750	3,050
Lost Soldier	3,900	4,600
Rock River	2,700	3,000
Lance Creek	750	750
Teapot Dome	600	600
Others	1,450	1,450
Total Wyoming	62,700	59,600
Increase		3,100

Montana

Cat Creek	2,400	2,450
Sunburst	10,000	10,000
Others	150	150
Total Montana	12,550	12,600
Decrease		50

SETTING AND CEMENTING MORE THAN A MILE OF 8⅝ INCH 40 LB. CASING



In the California Field With an "OILWELL" Imperial Rotary

The accompanying illustration shows the Milham Exploration Co.'s well—Playa del Rey, No. 2—in the California Field which was drilled with **"OILWELL"** Rotary Equipment to a depth of 5,300 feet.

5,300 feet of 8⅝ inch 40 lb. casing was set by the **"OILWELL"** Imperial Rotary, and cemented.

5,300 feet of 5 inch 22 lb. drill pipe was used in drilling.

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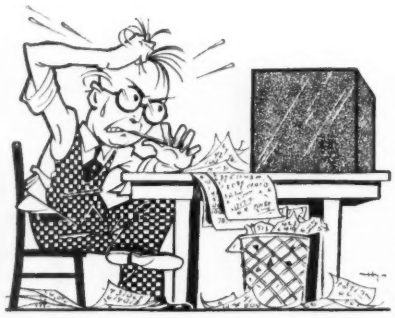

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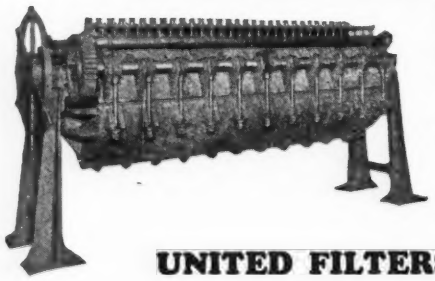

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Colorado		
Moffat (Craig)	2,700	2,900
Fort Collins	4,050	3,900
Florence	450	450
Others	550	600
Total Colorado	7,750	7,850
Decrease		100
New Mexico		
Artesia	2,000	2,250
Hogback	850	800
Table Mesa	100	400
Rattlesnake	750	2,100
Total New Mexico	3,700	5,550
Decrease		1,850
Total Rocky Mountain	86,700	85,600
Increase		1,100
CALIFORNIA	**Jan. 29**	**Jan. 22**
Santa Fe Springs	45,500	47,000
Long Beach	93,000	93,000
Huntington Beach	90,000	93,000
Torrance	25,000	26,000
Dominguez	18,500	19,000
Rosecrans	12,500	12,500
Inglewood	38,500	39,000
Midway-Sunset	90,500	90,500
Ventura Avenue	51,700	54,300
Seal Beach	10,200	10,300
Others	172,000	172,000
Total California	647,400	656,600
Decrease		9,200
EASTERN		
(Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.	107,500	107,500

*Revised.

Little of Pennsylvania Neutrals Available

CLEVELAND, Jan. 31.—A few spot sales of viscous neutral oils were reported in the last week by western Pennsylvania refiners. Several carloads of 150 viscosity at 70° F. No. 3 color neutral were sold by one refiner at 25½ and 26 cents a gallon both for prompt and over February shipment. One carload of 150 neutral was sold by another refiner at 26 cents, spot shipment.

Sale of three carloads of 200 viscosity at 70° F. No. 3 neutral was made by one refiner at 30½ to 31¼ cents for February shipment. One refiner this morning offered one carload of 200 at 32 cents. He expected to have this sold without much delay. Most refiners are still sold up.

Some refiners are alarmed at the neutrals market fearing that it will get too far out of line. One said he would rather keep neutrals to a 30-cent peak and sell his cylinder stocks at 2 or 3 cents more than the present market than to have the cylinder stocks drag and neutrals soar. The market has been thrown somewhat out of balance, he said, while the market was adjusting itself to the influx of long residuum oils and the increased demand for Pennsylvania motor oils.

Cylinder stocks are slightly higher than a week ago.

Gasoline appeared firmer today following the gasoline tank wagon price advances of 1 cent a gallon in Pennsylvania and central and eastern New York. Refiners were selling U. S. Motor mostly at 12 cents instead of 11¾ cents, the general price last week. A few were watching the market carefully believing that 58-60 U. S. Motor should bring 12½ cents. Two predicted that price would be reached in the next week or two.

Seminole District Passes 200,000 Bbls. Good Wells Being Drilled In

By A. F. Hinton
N. P. N. Staff Writer

TULSA, Jan. 29

THE Seminole district again set a new high record for production last week, when it was officially producing 198,426 barrels, and unofficial figures later showed it had gone well beyond 200,000 barrels.

The new high figure was made up of 189,138 barrels from Seminole, Searight, and Eight-Six, with 174 wells producing, and 9,288 barrels from Earlsboro, with 11 wells. Seminole proper, the original field in township 9-6, is making about 145,000 barrels daily.

Carter Oil Co., which got a late start in drilling up its Seminole acreage, now is in the lead with 32,000 barrels daily production and about 60 wells drilling. The company has 20 wells producing, of which three were on gas lift early in the week. Other wells will be put on gas as fast as equipment can be obtained. The Carter Oil Co. has retained S. F. Shaw in a consulting capacity to supervise its gas-lift installations, and he is now in Seminole on that work.

Indian Territory Illuminating Oil Co., which drilled the original Hunton lime discovery well at Seminole, has about 20,000 barrels daily production, with one well making more than 6000 barrels. This is its No. 1 Livingston, in 15-8-6. Gypsy Oil Co., Prairie Oil & Gas Co., Sinclair Oil & Gas Co., Tidal Oil Co., and Pure Oil Co. rank next in the order named in amount of production, the last named having about 15,000 barrels daily.

THE rush now on to install gas-lift plants at Seminole has resulted in a compressor famine in the Mid-Continent. There are about 190 compressors either in use or on the ground at Seminole, all for gas-lift work. Many compressor manufacturers have been having difficulty in supplying the demand, on account of inability to make delivery. The companies apparently are all in a rush to get equipment, so that he who can make delivery gets the business, regardless of make or type of machine. The last time such a condition existed was about nine or ten years ago, when the oil companies were as enthusiastic about vacuum plants as they now are about gas-lift, and many compression gasoline plants were being built. However, the shortage of compressors was not as great then as it is now.

Among recent wells brought in at Seminole, the No. 3 Killingsworth of the Carter Oil Co., in the SEc NE NW of 23-9-6, was shot with 20 quarts in the Wilcox sand from 4020 to 4040 feet and made 1395 barrels the first 24 hours. The same company's No. 2 on this farm, in the NEc SE NW of 23, had the Hunton lime from 3863 to 3885 feet, with a show of oil. It is drilling ahead.

Carter Oil Co. No. 1 Killingsworth, in the SWc SE of 14-9-6, is the best well completed at Seminole in recent weeks. This well had the Wilcox from 4033 to 4066 feet and made 1940 barrels natural. It was then shot with 40 quarts, and flowed 3580 barrels in the ensuing 24 hours.

IN the south end of the field, Gypsy Oil Co. drilled in its No. 1 Butler, in the NWc NE NE of 35-9-6. This well is swabbing 235 barrels in the Wilcox sand from 3945 to 3990 feet. The Philmack well, also known as No. 1 Butler, in the NWc SE NE of 35, reported last week, is still flowing 2390 barrels daily. This company's No. 2, a location south of No. 1, is fishing at 3482 feet and No. 3, to the east, is building a derrick.

Another new well in this part of the field, is the Barnsdall Oil Co. No. 1 L. Jones, in the NEc of 34-9-6. This well swabbed 300 barrels from the Wilcox sand at 3994 to 4027 feet. It was then drilled to 4092 feet and shot with 35 quarts, after which it made 1100 barrels. Sinclair Oil & Gas Co. No. 2 Cudjo "B," in the NWc NE NW NW of 35-9-6, is swabbing 295 barrels in the Wilcox sand from 4020 to 4033 feet. The same company's No. 5 Cudjo "A," in the NEc NW NW of 35, had the Wilcox from 4035 to 4058 feet, and is making 450 barrels on the swab.

The first well of the Atlantic Oil Producing Co. in the Seminole field is its No. 1 Cudjo, in the NWc NE SW of 35-9-6, which was drilled in the past week. This well was reported making about 50 barrels an hour in the Wilcox sand from 4104 to 4137 feet.

Analysis of drilling operations in the Seminole district show that there are 453 wells in some stage of development, of which 106 are below 3700 feet in depth. Seminole proper has the largest number of wells below this depth, with 88 out of 197 total operations. The Eight-Six field now has 126 operations under way, of which 14 are locations and 84 rigs. It now has 17 wells drilling above 2000 feet, six from 2000 to 3099 feet, four from 3100 to 3700 feet and one below that depth. Hauling conditions have been so unfavorable it has been almost impossible to move material through the field for the past two weeks, and many wells have been delayed in getting started as a result.

A GOOD well in the vicinity of Tulsa drilled during the week was that of the Savoy Oil Corp. in the NEc NE of 6-18-12, Creek county, about seven miles southwest of Tulsa and in the

Drilling Operations in Oklahoma, Kansas and Texas

	Jan. 29 — Week Ended — Jan. 22									
OKLAHOMA	**Loc.**	**Rigs**	**Drg.**	**S.D.**	**Total**	**Loc.**	**Rigs**	**Drg.**	**S.D.**	**Total**
Burbank	6	11	31	1	49	8	16	27	...	51
Other Osage	17	11	27	2	57	9	8	32	2	51
Bristow-Cushing	11	13	104	8	136	13	12	100	12	137
North Oklahoma	7	17	107	46	177	10	19	113	40	182
South Oklahoma	19	22	172	24	237	19	29	201	40	289
Muskogee	..	11	40	19	70	...	15	46	11	76
Okmulgee-Bristow	5	56	138	17	216	4	56	126	18	204
Tonkawa	1	...	4	4	9	1	...	5	4	10
Seminole Dist.	44	111	429	20	604	57	91	413	24	585
Total Oklahoma	110	252	1052	141	1555	121	246	1063	151	1581
KANSAS	65	77	220	92	454	64	71	234	93	462
TEXAS										
Cent. & E. Texas	..	128	282	167	577	...	148	280	157	585
Panhandle	..	184	272	78	533	...	102	251	101	454
N. Central Texas	..	54	97	33	184	...	64	94	46	204
West Texas	..	90	140	42	272	...	78	139	35	252
Total Texas	...	456	790	320	1566	...	392	764	339	1495
GRAND TOTAL	174	785	2344	553	3575	185	709	2061	583	3538

Drilling Wells, Seminole District, as of Jan. 29, 1927

Field	Locations	Rigs	Less than 2000′	2000′ to 3099′	3100′ to 3700′	Below 3700′	Total
Seminole*	9	19	25	26	30	88	197
Searig t**	2	13	8	6	3	13	45
Eig t-Six	14	84	17	6	4	1	126
Earlsboro	1	19	22	17	22	4	85
Totals	26	135	72	55	59	106	453

*Seminole includes all of township 9-6, except sections 2, 3, 4 and 10.
**Earlsboro includes all of township 10-6, and sections 2, 3, 4 and 10-9-6.

Completions in Oklahoma and Kansas, Week Ending Jan. 29

OKLAHOMA

Beckham County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	1	NEc SE NE NW 22-9-23W	T.D.2760	66M
Duke	1	NEc SE NW 36-8-22	T.D.1643	Dry

Caddo County

Gorton	1	SWc NW 2-5-9W	1909–2452	20
Briscoe-Hall	3	SEc SW NW 11-5-9W	2070–2384	19
Livermore et al	1	SEc NW NW 12-5-9W	T.D.2428	20

Carter County

Magnolia	1	SWc SE 14-1-3W	2273–2323	100
Magnolia	5	SEc NE SE 3-2-3W	2132–3–28	120
Magnolia	3	NWc SE NE 16-2-2W	1160–1172	30
Magnolia	4	SWc NE SE 16-2-2W	1220–1225	45
Minick-Kirk	1	SWc NW SW 5-3-2W	2610–3258	20M
Franklin	1	NEc SE 10-3-2W	T.D.3485	Dry
Cameron	1	NWc NE NW 8-4-1W	T.D.3134	Dry

Creek County

Devonian	1	SWc NE 36-15-7E	3269–3270	22M
Pure	5	NEc SE NE 30-14-8	3430–3452	260
Wright	5	C NW SE 24-17-10	2385–2408 OWD	35
Future Dev	1	NWc SE NE 2-16-11	2246–2255	50
Texas	5	SWc SE 13-19-8	3245	Dry
Devonian et al	1	SWc NW 28-17-8	T.D.3761	Dry
Pioneer	4	C SW NE 15-19-9	T.D.3152	Dry
Dixie	2	SWc 5-17-10	T.D.3470	Dry
Nowata	1	SEc 6-17-10	T.D.2425	Dry

Garfield County

Sinclair	69	NEc SW NE 13-22-4W	3638–3652	700
Sinclair	22	C NE NW 30-22-3W	T.D.2345	Dry

Garvin County

Magnolia	1	SEc NW 31-1-3W	3365–3375	26

Grady County

Stogner et al	9	SWc SE NE 23-5-8W	2020–2261	17M
Amerada et al	1	SWc SE 6-3-5W	1081–1809	7M
Marland	2	SWc NW 16-3-5W	1800–1821	90
Magnolia	1	SWc NW SW 27-3-5W	1902–1918	26
Schwartzfisher	1	NWc NE SW SE 2-8-8W	T.D.1450	Dry
Watchorn	1	SWc NE 21-8-7W	T.D.4423	Dry

Grant County

Miss. Valley	1	SEc 18-29-3W	T.D.4503	Dry

Hughes County

Dixie	8	SEc NE NE 5-7-8E	T.D.3207	Dry

Kay County

Marland	1	SEc NW 17-29-1E	2323–2324	296
Marland	4	SEc NW NE 12-26-2	3023–3042	228
Blackwell et al	2	SWc NE NW 7-26-1W	3609–3634	335, 2.9M
Marland	8	SEc NE NE 12-26-2W	3592–3617	1055
Davis	1	NWc SE NW 8-28-1W	T.D.3853	Dry
Barnsdall	4	SWc NW 28-25-1W	T.D.3300	Dry

McIntosh County

Tiger Mtn	7	C NW NW 16-11-14	2590–2620	15

Muskogee County

Future et al	1	NWc SW 33-15-15	T.D.2223	Dry
Boomer	1	NEc NW NW 20-13-16	T.D 2236	Dry

Okfuskee County

Robinson	1	NWc 11-12-11	T.D.2881	Dry
Link	1	NWc SW 21-10-10	T.D.3365	Dry

Okmulgee County

Texas	13	C NE SE 34-15-11	2630–2675	15
Pine	2	CWL SE SE 9-15-12	2649–2669	75
Campbell et al	1	NWc NE SE 18-15-12	2745–2768	2M
Kistler	5	CEL NE NW 3-11-12	871– 905	3M
Kingwood	2	SWc NW SW 7-14-13	1395–1430	5
Simmons et al	9	CEL SE NW 15-13-14	2460–2467	20
Newman	1	NEc NW NE 8-13-11	T.D.3301	Dry
Henry	1	SWc NW SE 19-13-11	T.D.2660	Dry
Kessler	1	NWc SW NE 7-14-13	T.D.2861	Dry

Osage County

Delmar	1	NWc SE 23-27-11	1090–1122	5
Winona	21	CSL N ½ SE 28-24-10	1368–1386	30
Tidal Osage	5	NWc SE SE 1-23-8	2408–2410	75
Mitchell	8	SWc NE NW 7-21-9	495– 515	15
S. S. Home	100	NWc SW NW 19-21-10	2126–2172	16M
Tidal	6	NEc SW NE 7-21-11	2031–2038	360
Prairie	1	NWc 27-25-6	T.D.3288	Dry
Ind. Terr	344	SEc NE NW SE 33-29-10	T.D.1717	Dry
Tidal Osage	19	NEc NE 27-28-7E	T.D.2303	Dry
Mid-Cont	1	SEc NE 10-25-7E	T.D.3160	Dry
Mason et al	1	SEc SW SE 14-21-8	T.D.2550	Dry

Pawnee County

Company	Well No.	Location	Depth	Initial Prod.
Rees et al	1	NWc SE 16-21-7	T.D.2635 OWD	Dry
Watchorn	16	SWc NE SW 33-23-3	T.D.2729 OWD	Dry

Pittsburg County

Quinton et al	1	SWc NW NE SW 10-7-18E	T.D.3356	40M

Seminole County

Sinclair	12	CWL SE SE 33-11-8	1830–1842	18
Ind. Terr	1	NWc SW SW 26-8-6	T.D. 4405	Dry

Seminole County—Seminole

Tidal	2	NEc NW SW 24-9-6	T.D 3590	Dry
Transcontinental	2	NEc SW NW 23-9-6	4107–4142	3290
Gypsy	4	NEc NW 24-9-6	4020–4042	618
Gypsy	1	NWc SW 25-9-6	4170–4223	1005
Indep.-Garland	8	NEc SE NE 26-9-6	4160–4170	200
Ind. Terr	4	NWc NE SE 26-9-6	4089–4095	990
Empire	1	NEc NW NE 34-9-6	4126–4144	564
Prairie	3	NEc NE SE 27-9-6	3967–3987	2160

Stephens County

Beard-Cobb	6	NWc SW SW 30-1-8W	1963–1985	80
Winkler et al	6	NEc NW NW SW 34-1-8W	1640–1646	45
Turman	1	NWc 4-2-8W	1984–1985	7M
Commercial	10	NWc NE SW 12-2-8W	2056–2068	30
Winkler et al	9	SWc SE 29-1-7W	T.D.2805	Dry

Wagoner County

Morrison et al	1	NEc SW SW 21-18-16	709– 738	50
Newman	2	NWc SW SW NW 18-17-17	1120–1146	5M

KANSAS

Barber County

Skelly et al	1	SEc 30-30-14W	T.D.4746	Dry
Magnolia	1	C W ½ E ½ SW 25-27-4	T.D.3318	Dry

Butler County

Rosenthal et al	2	SEc SE 4-27-6	3155–3161	250
Empire	4	NEc NW SE 12-27-7	2670–2726	440

Cowley County

Texas	13	CNL SW NW NE 6-31-6E	2843–2882	50
Patton et al	2	NWc NE NE 31-31-6	2930–2978	10
Marland	2	SEc SW NE 15-32-4	3304–3306	579
Marland	3	NWc SW NE 15-32-4	3214–3281	275
Slick	1	NWc NE 22-32-4	2533–2550	8M
Roth et al	2	NEc NW SE 30-31-5	T.D.1696	Dry

Elk County

Union Gas	19	SWc SE SW NE 14-31-10	1608–1630	450

Greenwood County

Syndicate	6	SWc NE SE 2-22-10	2077–2112	60
Texas et al	3	CEL NE NW SW 16-23-11	1957–2011	75
McGinnis et al	1	NEc NW NE 36-24-10	1900–1925	75
Manhattan et al	6	NWc NE NE 19-24-11	1843–1875	100
Theta	5	SEc NW NW 31-24-11	1880–1890	50
Tidal	30	SWc NW SW SW 2-26-8	2405–2465	40
Enterprise	1	NWc SW NW 9-22-13	T.D.1920	Dry
York St	1	SWc SE 16-23-11	T.D.2044	Dry
Parkins et al	1	SEc 23-25-10	T.D.2105	Dry

Kingman County

Carter	3	NWc NE SE 16-27-7W	T.D.2908	Dry
Crawford et al	1	NEc NW 31-28-5W	T.D.4398	Dry
Marland	1	NEc SW 11-28-6W	T.D.4291	Dry

Lyon County

McDougal et al	1	NWc SW NE 34-21-11	T.D.2495	Dry
Jackson-Wise	1	NEc SE NW 25-21-10	2543–2547	300

McPherson County

Danciger et al	1	NWc 3-18-2W	T.D.3450	Dry

Marion County

Morgan et al	1	NEc NW 32-21-4	T.D.1200	Dry

Morris County

Bowmand et al	1	SEc NW 21-17-7	T.D. 800	Dry

Russell County

Streeter et al	1	SWc SE NW 20-11-15W	T.D.1920	Dry
Mid-West	22	NWc SE NW 32-11-15	2878–2886	104

Sedgwick County

Lamson et al	1	NEc NW SE 7-26-2E	T.D.3080	Dry

Sumner County

Vickers et al	1	SWc NE SE 24-31-2	1945–1956	600
Roxana	1	NWc SE SE 24-31-2	1856–1921	550
Roxana	2	NWc NE 36-31-2	1843–1846	55

Bowden pool. This well got the Turkey Mountain sand (below the Wilcox) at 2260 feet, and at less than a foot in, was reported flowing 50 barrels an hour.

Logan county, which has been somewhat in the limelight the past few weeks because of the Texas-Pacific Coal & Oil Co. wildcat near Lovell, had a setback the past week when a deep dry hole was completed. This was the Zingery & Bailey No. 1 Baker, in the NWc NE of 5-17-1W. It was drilled to 4517 feet and abandoned. This is northwest of the town of Langston and just south of the Cimarron river.

In Kansas, the Reno county wildcat of Skelly Oil Co. and Hartman & Skaer, in 24-24-8W, is producing 190 barrels of oil and 10 barrels of water daily.

Pipe Line Men Hold Banquet

OIL CITY, PA., Jan. 29.—The annual banquet of the southern group of old Standard pipe lines—South West Pennsylvania, Southern, Eureka and Cumberland—was held Jan. 26 at the Venango Country club. This affair followed the annual meetings of the South West Pennsylvania and the Southern lines.

Vacuum Buys Louisiana Crude in Tank Cars

Staff Special

HOUSTON, Jan. 27.—Natural Gas & Fuel Corp., subsidiary of Cities Service Oil Co., in north Louisiana and Arkansas producing fields, has sold 1,000,000 barrels of Louisiana crude to the Vacuum Oil Co., for delivery over 12 months beginning Jan. 20. Delivery is to be made in tank car shipments to Lake Charles, La., and Texas City, Texas. The basis of sale was not made public.

Completions in N. C. & E. Texas & Panhandle, Week Ending Jan. 29

Company	Well / Farm	Location / Survey	Depth	Initial Prod.
Archer County				
Hunter	3-Wilson	H&TC	1639–1643	25
Rowe	2-Jentsch	Harris	1185–1187	16
Mear et al.	1-Wilson	Nail	T.D.1803	Dry
Erwin et al.	1-Wilson	H&TC	T.D.1633	Dry
Lowrey et al.	1-Wilson	ANCL	T.D.1650	Dry
Simms et al.	5-Turberville	Carson	T.D 1491	Dry
Cochran et al.	1-Farmer	Anderson	T.D.1510	Dry
Ridgway et al.	1-Farmer	Baker	T.D.1407	Dry
Brown County				
Texas	10-Hickman	Benson	1169–1189	56
Humble	7-Hickman	Benson	1220–1230	100
Phillips	2-Hickman	Benson	1218–1280	40
Tidal	6-Hodnott	Harris	1222–1243	50
Curry et al.	1-Newton	Mitchell	1254–1269	425
Henshaw et al.	18-Lowe	Stubblefield	1260–1279	1100
Henshaw et al.	20-Lowe	Stubblefield	1260–1280	1100
Lester	17-Fry	Chaudoin	1301–1322	300
Sinclair	17-Fry	Stubblefield	1262–1286	960
Texas	6-Pugh	Pugh	1329–1333	125
Bowers et al.	1-Giddings	Clelland	1558–1574	40
Humble	1-Harris	Harris	T.D.1694	Dry
Tidal	5-Hodnott	Harris	T.D.1300	Dry
Atlantic	1-Stone	Williams	T.D.1802	Dry
Humble	1-Andrews	Bannister	T.D.1352	Dry
Mimms	1-Reeves	Thomas	T.D.1325	Dry
Fain et al.	1-Taylor	Whittington	T.D.1208	Dry
Hurlye	4-Visart	Bangs	T.D.1030	Dry
Carson County—Panhandle				
Roxana	1-Bryon	I&GN	3176–3214	283
Coleman County				
French et al.	1-Evans	T&NO	T.D.1706	Dry
Cooke County				
Simpson et al.	1-Huston	Depric	T.D.2420	Dry
Shasta	1-Payton	Cooke	T.D.2126	Dry
Crane County				
Magnolia et al.	1-Lassiter	Univ.	3004–3045	100
Gulf	4-McElroy	GCSD	2706–2818	500
McMan	1-Hughes	GCSD	2391–2410	200
Crockett County				
Schaffner et al.	1-Univ.	Univ.	2162–2173	5
Culberson County				
Pure	1-Ramsey	TWP 2	T.D.3315	Dry
Eastland County				
Moore	2-Whittington	H&TC	1230–1247	20
Cranfill et al.	1-Turner	H&TC	1280–1284	5M
Thames	1-McAllister	H&TC	2986–3051	654
B Iva	1-Dabbs	H&TC	3285–	Dry
Kirk et al.	1-Miers	DeMoss	T.D.3563	Dry
Tex-Pac	1-Allen	Durocher	T.D.3280	Dry
World	1-WeCave	Winfree	T.D.3548	Dry
Tex-Fidelity	1-Leverage	H&TC	T.D.3160	Dry
Foard County				
Humble-Navarro	1-Eastley	SP	2760–2809	8M
Gray County—Panhandle				
Magnolia	1-Holmes	I&GN	3120–3186	60
Texas	3-Holmes	I&GN	T.D.3307	Dry
McMan	6-Reynolds	I&GN	2977–3000	300
Gray County				
Humble	6-Reynolds	I&GN	2948–2966	400
Wilcox	15-Reynolds	I&GN	2952–2999	150
Wilcox	16-Reynolds	I&GN	3020–3060	100
Champlin et al.	1-Johnson	H&GN	2895–2908	35
Howard County				
Marland	7-Chalk	W&NW	1610–1618	39
Marland	1-Chalk	W&NW	1656–1578	80
Magnolia	6-Chalk	W&NW	1628–1638	85
Magnolia	1-Hyman	W&NW	1170–1174	25
Hutchinson County—Panhandle				
Gulf-Panhandle	3-Whittenburg	HO&B	2944–2984	300
Phillips	3-George	H&TC	2876–2908	25
Marland	1-Whittenburg	H&TC	2736–2790	10
Mid-West	3-Whittenburg	M&C	3010–3036	294
Midwest	5-Whittenburg	M&C	2965–3030	253
Phillips-Gru	1-Whitten.	H&TC	2860–2903	900
Phillips-Pattsburg	3-Whittenburg	H&TC	2870–2930	200
Phillips-Kingsland	5-Kingsland	D&SE	2675–2756	160
Phillips-Lansing	3-Kingsland	D&SE	2717–2750	75
Manhattan	1-Johnson	A&B	3030–3040	55
Southwest	3-Johnson	A&B	2889–2965	800
Skiatex	3-Kingsland	M&C	2940–3038	500
Dumas et al.	1-Harrington	I&GN	T.D.3501	Dry
Mid-Cont	1-Compray	H&GN	2320–2266	410
Kimble County				
Dixie	1-Harrison		T.D.3026	Dry
Mitchell County				
Atlantic	5-Ricker	TP	3065-T.D.	92
Atlantic	7-Ricker	TP	3039–3070	100
Montague County				
Cato	7-Rolls	Chambliss	867– 881	41
Gulf	9-Howard	Votan	1159–1170	25
Humble	1-Jones	Donoho	809– 832	60
Texas	7-Maddox	Thompson	833– 978	60
Texas	9-Maddox	Thompson	890– 903	60
Continental	9-Maddox	Thompson	853– 866	60
Pure	2-Howard	Chambliss	T.S.1413	10
Texas	4-Maddox	Thompson	890– 905	27
Continental	17-Howard	Chambliss	1379–1390	17
Texas	2-Jones	Donoho	823– 848	35
Texon	16-Howard	Chambliss	T.D.1666	Dry
Navarro County				
Osborne et al.	1-Mitchell	Hart	T.D.2850	Dry
Palo Pinto County				
Britten et al.	1-Johnson	Bird	3553–3620	20, 2½M
Reagan County				
Cal. Co.	3-Permit —2	Univ.	T.D.3080	Dry
Shackelford County				
Rosier-Pendleton	324-A	ET	1135–1153	200
Rosier-Pendleton	25-B	ET	1297–1306	30
Rosier-Pendleton	8-C	ET	1137–1153	300
Rosier-Pendleton	9-C	ET	1133–1143	300
Duty	1-McLemore	H&TB	T.D. 795	Dry
Rosier-Pendleton	1-Mathews	ET	T.D.1259	Dry
Tannehill	8-Moberly	ET	T.D.1450	Dry
Gwinnup	2-Poindexter		T.D.1580	Dry
Southern	3-Dyer	TP	T.D.1530	Dry
Stephens County				
Adams-Fouts	2-Bradford	TP	T.D.1975	Dry
Scott et al.	1-Baller	SP	3390–3417	40
Throckmorton County				
McQuire	1-McKeichen	Mergress	T.D.1002	Dry
Upton County				
Amerada	2-Hughes	Teal	2175–2177	1437
Amerada	3-Hughes	Teal	2090–2233	420
Dixie	9-Hughes	Teal	2060–2186	50
Di ie	11-Hughes	Teal	2065–2200	40
Roxana	6-Hughes	Teal	2060–2153	390
Roxana	7-Hughes	Teal	2090–2149	500
Roxana	8-Hughes	Teal	2085–2146	820
Roxana	9-Hughes	Teal	2100–2105	500
Simms	1-Shirley	GCSD	2141–2143	400
Dixie	13-Burleson	Jones	2226–2237	40
Independent	7-Burleson	Jones	2218–2306	20
Wentz	2-Sherk	MK&T	T.D.2221	210
Sun	7-Burleson	Jones	2075–2160	100
Dixie	14-Burleson	Nidiver	2022–2102	40
Wheeler County—Panhandle				
Vaughn et al.	2-Cannon	H&GN	1850–1865	12M
Wilbarger County				
Fain et al.	2-Fluman	H&TC	1477–1492	75
Phillips	12-Waggoner	H&TC	1898–1917	40
Phillips	16-Waggoner	H&TC	2365–2385	185
Phillips	1-Waggoner	H&TC	2296–2323	30
Waggoner	5-Waggoner	H&TC	2372–2378	210
Phillips	6-Waggoner	H&TC	T.D.1742	Dry

Completions in North Louisiana and Arkansas, Week Ending Jan. 27

Company	Well	Location	Depth	Yield
Caddo Parish—Caddo District				
Magnolia Pet. Co.	Wemple No. 4	14–20–15	2258	100
The Texas Company	Caddo L. B. No. 67	33–21–16	1337	50
The Texas Company	Glassell No. 1	14–20–15	2213	3m. cu. ft. gas
The Texas Company	Thigpen No. 1	15–20–15	2190	50
Thomason et al	Muslow Fee No. 6	31–21–15	1628	15
Caddo Parish—Reisor District				
Magnolia Petro. Co.	Fee No. 1	14–17–14	985	cu. 2m. ft. gas
Grant Parish—Colfax District				
J. J. Long et al.	Calhoun No. 1	4– 7–4W	2519	Dry and Abnd.
Grant Parish—Little Creek Dist.				
Ayers et al.	Blackshear No. 1	6– 9–1E	1600	S.W.Aband.
La. Oil Refg. Corp.	Tremont Co. C-4	2– 9–1E	1506	80
Claiborne Parish—Homer District				
Stand. Oil Co., of La.	Guy Oakes No. 16	29–21– 7	1960	Junked&Abnd.
Ouachita Parish—Bastrop District				
Dickinson et al.	Leiber No. 1	26–20–5E	2300	1M. Ft. Gas
Union Parish—Spencer District				
Ouachita Nat. Gas & Oil Company	Smith No. 6	37–20–4E	2134	10 M. Ft.Gas
Ouachita Parish—Monroe District				
Jordan Drlg. Co.	Ouachita L and D Co., No. 2	12–18–4E	2222	1M. Ft. Gas
Ladell et al.	Fee No. 35	1–19–4E	2173	40M. Ft. Gas
ARKANSAS				
Smackover				
Hollyfield et al.	Gilles No. 16	10–16–15	2403	S.W.Aband.
Keen and Wolf	Murphy No. 2	9–16–15	2388	50 bbls.
Natl. Gas & Fuel Corp.	Bilyew No. 7	9–16–15	2644	7M. Ft. Gas
Natl. Gas & Fuel Corp.	Hill A-5	5–16–15	2649	5M. Ft. Gas
Lisbon District				
Ohio Oil Co.	Harrop No. 2	28–17–16	2160	10
Southern Oil Purch. Co.	Graves No. 19	3–16–15	3608	S.W.Aband.
Belmont et al.	Hollis No. 1	13–18–15	2616	S.W.Aband.
H. O. Mellor, Tr.	Hill No. 1	10–18–10	2147	S.W.Aband.

Town Lot Boom on Mile-Square Area Fenced by Dry Holes

LOS ANGELES, Jan. 31

CONSIDERABLY more than $5,000,000 has been paid for land in fee or for leases in the Potrero district, midway between Inglewood and Rosecrans fields in Los Angeles county, where the Associated Oil Co.'s Cypress 1 penetrated more than 50 feet of rich oil sand, and shut down all operations. This figure does not include what was paid by the Associated for about 1000 acres, a part of which was purchased in fee. Neither does it take into consideration the money paid for interest in royalties.

All this money has been spent in a territory nearly a mile square, and completely surrounded by dry holes ranging from 4500 to 6000 feet in depth, without one producing oil well. The Associated drilled to 4450 feet and quit, after cementing a string of pipe at 4386 feet.

Julian Oil Corp. spent about $1,000,000 for lots in the townlot area adjoining the land held by the Associated, well scattered, and started drilling a well, which is now better than 4000 feet. Late this week Julian Oil staked eight new locations, and two or three new derricks will be going up next week. General Petroleum secured several lots offsetting the Associated land and is about ready to start drilling. Geo. F. Getty secured a number of lots and derricks are up at two locations. California Petroleum also secured a number of lots and one location has been spotted. A number of other concerns have townlots, mostly in blocks of three or four to ten lots.

Many of the lots have been sold outright, those on the tier offsetting the Associated acreage bringing from $7500 to $10,000 each, while those far removeed are ranging from $5000 to $3500.

It is generally considered that the district will be a light oil field of some kind. Probably either Julian will complete a producer or the Associated will drill in its first test within the next two weeks.

The Marland Oil Co. late this week completed its Selover 2 in the Seal Beach field for 2400 barrels of clean oil from 4741 feet, producing from only 20 feet of sand. The well is making about 1,000,000 cubic feet of gas, with a natural gasoline content of slightly better than two and a half gallons to the cubic foot. This gives Marland a daily production of about 10,000 barrels daily, with the field making close to 14,000 barrels.

Huntington Beach is steadily declining. The loss in daily average production last week was about 3000 barrels in spite of the completion of several small producers. Early in the week at least a dozen producers, drawing from the deeper sand were making considerable bottom water.

Santa Fe Springs daily production jumped the past two weeks, due to the placing of several wells on the gas lift by the Associated Oil Co. Other wells were worked over for slight increases.

University Field, Texas Extended Half a Mile

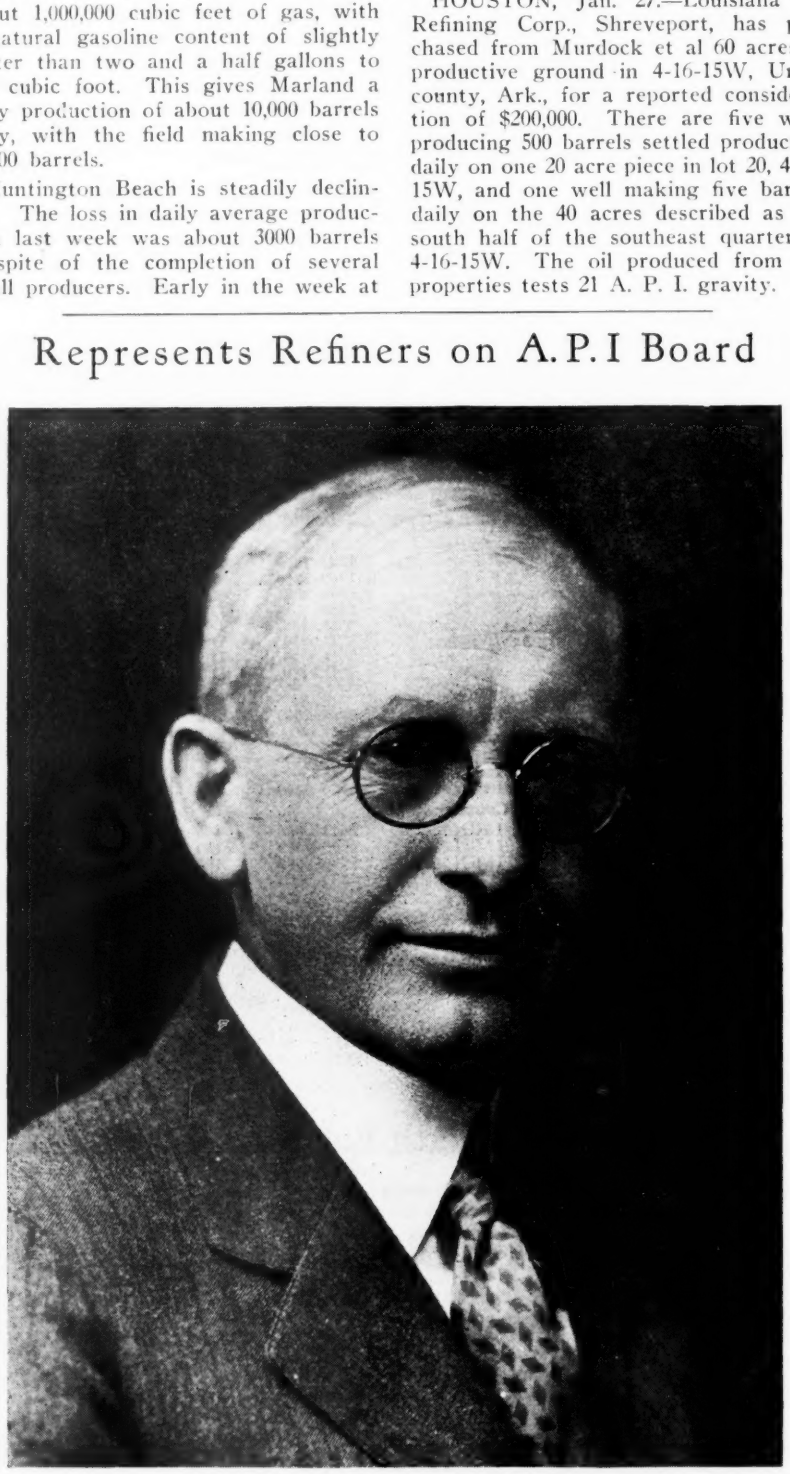
(By Telegraph)

HOUSTON, Feb. 1.—Eastland Oil Co., No. 1 State Lasseter test, in Sec. 47, University Block 30, Crane county, found 15 feet of pay at total depth of 2905 feet and started off making 100 barrels an hour. The well is half a mile south of other University field production in the pool discovered about a year ago by Church and Fields and is also three and one half miles north of Gulf Production Co.'s oil wells in McElroy ranch pool. Gulf's McElroy ranch wells have been large producers but earlier completions in University block gave up small yields.

"Loreco" Buys Arkansas Producing Acreage

HOUSTON, Jan. 27.—Louisiana Oil Refining Corp., Shreveport, has purchased from Murdock et al 60 acres of productive ground in 4-16-15W, Union county, Ark., for a reported consideration of $200,000. There are five wells producing 500 barrels settled production daily on one 20 acre piece in lot 20, 4-16-15W, and one well making five barrels daily on the 40 acres described as the south half of the southeast quarter of 4-16-15W. The oil produced from the properties tests 21 A. P. I. gravity.

Represents Refiners on A.P.I Board



L. L. MARCELL

President of the White Eagle Oil & Refining Co., Kansas City, elected a vice-president of the American Petroleum Institute to represent the refining branch of the industry, at the recent annual meeting in Tulsa

Los Angeles Shipments Gain 25 Per Cent in 1926

LOS ANGELES, Jan. 31.—During the calendar year 1926, a total of 63,839,648 barrels of all petroleum products were shipped out of Los Angeles harbor to all points outside of immediate California trade territory, against 50,923,147 barrels in 1925 and 65,272,680 barrels in 1924. These figures do not include cargo shipments out of San Francisco district, neither does it include package goods.

The large movement during 1924 included a total of 42,564,117 barrels of crude to Pacific foreign, Atlantic domestic and Atlantic foreign points, against 17,689,307 barrels in 1925 and 16,901,243 barrels in 1926. But during 1926 a total of 27,494,839 barrels of fuel oil was moved to points mentioned against 17,212,156 barrels in 1925 and only 14,569,950 barrels in 1925, the greater increases being due to larger movements to Atlantic domestic and Atlantic foreign points.

More than twice as much gasoline was moved out of Los Angeles harbor in 1926 as during 1924. It will be noted from accompanying table that Atlantic domestic drew on California out of Los Angeles harbor alone in 1926, a total of 6,805,335 barrels of gasoline, a slight decrease when compared with 1925, but a very heavy increase over 1924. The movement of kerosene out of Los Angeles harbor has also shown a steady but gradual increase over the three year period, practically all of which moved to Pacific foreign trade territory

During 1926, movement of other products included 362,799 barrels of distillates, 1,674,411 barrels of Diesel, 2,600,958 barrels of tops and 20,596 barrels of lubes. The figures used do not include movement of packages or cans of the various products.

The movement of various products out of California's trade territory during 1927 will have considerable effect on the general market condition. Rumors persist that several contracts which expired around the first of the year are not to be renewed, but in some quarters it is felt that new contracts will be made in sufficient numbers to bring about a movement during the year that will be close to the movement during 1926.

It is barely possible that some quotations will have to be lowered to secure some of the contracts, and if it becomes necessary, the California companies will meet the issue squarely. For instance, it has been reported that a large eastern purchaser of west coast fuel oil has stated that no more than 77 cents a barrel will be paid for this California product. And California companies can't see it that way. They are asking from 80 to 85 cents a barrel, while one of the largest companies is asking $1 a barrel, and apparently doesn't care much if you buy. This company has plenty of storage space, and looks for better prices this year.

California is also taking fairly good care of its gasoline stocks, but the state could not afford to see the surplus grow very much larger. The same is true of other products. Therefore it is felt that exports from California in 1927 will about equal 1926, even if prices have to be shaved to move the stuff.

But California company officials apparently are of the opinion that the market situation is on the up grade and that they can move their surplus without cutting prices further.

Petroleum Shipments out of Los Angeles Harbor in barrels

Pacific Foreign

Year	Crude	Fuel Oil	Gasoline	Kerosene	*All Products
1924	1,663,713	12,144,877	241,962	1,586,267	16,022,257
1925	2,189,613	14,057,087	220,796	2,340,946	19,433,823
1926	2,252,167	13,037,170	1,240,900	2,600,931	19,975,068

Atlantic Domestic

Year	Crude	Fuel Oil	Gasoline	Kerosene	*All Products
1924	36,967,016	1,119,948	1,564,541	.....	40,147,218
1925	14,399,563	856,485	7,835,561	.....	24,287,919
1926	11,884,489	7,317,405	6,805,335	.....	29,472,639

Atlantic Foreign

Year	Crude	Fuel Oil	Gasoline	Kerosene	*All Products
1924	3,933,388	1,305,125	3,756,146	.....	9,103,205
1925	1,100,131	2,298,584	3,602,363	.....	7,201,405
1926	2,764,587	7,140,264	4,134,537	2,999	14,391,941

Recapitulation

Year	Crude	Fuel Oil	Gasoline	Kerosene	*All Products
1924	42,564,117	14,569,950	5,562,649	1,586,267	65,272,680
1925	17,689,307	17,212,156	11,658,720	2,340,946	50,923,147
1926	16,901,243	27,494,839	12,180,772	2,603,930	63,839,648

*Total includes all other products not mentioned.

California's Shut-in Production Rises to 58,200 Bbls.

LOS ANGELES, Jan. 29

SHUT-IN daily average production in California has increased to about 58,200 barrels the past few weeks.

The Associated Oil Co.'s No. 2 well in the Inglewood field, which was producing from the second and deeper sand, averaging around 1100 barrels daily, has been shut in, as the larger companies operating in Inglewood do not want the second sand produced until they need the oil. The Associated drilled a twin well to No. 2 to the first sand. When the new well was placed on production, the deeper producer was shut in.

There is a shut-in daily production of 2180 barrels in the new Poso Creek field in Kern County. The Shell Co. drilled in three producers good for about 1200 barrels, the Union Oil Co. drilled in two wells good for 600 barrels, while the Barnsdall is credited with one producer good for 300 barrels, with the Getty well making around 80 barrels, all being shut in. This is heavy oil and not needed.

Huntington Beach surprised last week with an increase of about 1000 barrels, due to completion of a number of new wells. The older wells in the Huntington Beach town lot area continue to show a steady decline and it requires much flush production to hold up the general daily average.

Much attention is being directed to the Potrero district, where the Associated Oil Co. drilled its Cypress 1 into a pay sand in wildcat territory and shut down the well after cementing the water string, which tested o. k. The Julian Oil Corp. is now drilling a well near the Associated's Cypress, having reached below 4000 feet, and the general reports are that favorable indications are lacking. The Associated found the oil sand slightly below 4300 feet. The General Petroleum is erecting rig to start at once, while Geo. F. Getty has erected two derricks. The present drilling wells are in the town lot area.

IT is generally believed that the Julian well will be completed, if it finds the sand, while the Associated would prefer to see the field, if it's a field, stand "as is" until the oil is needed. It is generally felt that it is a 50-50 chance that the district is a new field of light gravity oil.

The Richfield district in Orange County is rather active with several new locations. A lower zone has been found in a new section of this area and it is felt the district will show a small steady increase in daily production the coming spring and summer.

Announces Oil Extraction Process

WASHINGTON, Jan. 29.—The Bureau of Mines has put out a preliminary bulletin announcing the development of a process for extracting oil from surface bitumen, oil soaked sand and shale, which was invented by C. P. Bowie, petroleum engineer of the bureau, assisted by M. J. Gavin, refinery engineer. It is announced that details of the process are given at length in Technical Paper 370 by C. P. Bowie, copies of which may be obtained from the Bureau of Mines, Washington, D. C.

Strides in Refining Make Necessary Larger Write-offs on Equipment

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, Jan. 31

JAN. 1 the treasurer of an important refining company in the Mid-Continent field reported to the president it appeared necessary to write off the company's books approximately $245,000 in investment in refinery equipment. That amount, he stated, had been sustained through obsolescence within the last two years.

Necessity for charging off this large amount had really arisen as a result of the rapid advances in the art of refining made the last few years. New refineries are being built from time to time, with improved equipment which has increased yields and reduced manufacturing costs to such an extent it is necessary for refiners with older plants to replace their old equipment with new apparatus of modern type.

"It is absolutely necessary that refiners do this in order to operate on an efficient basis and meet the existing competition in gasoline prices," the treasurer stated in his report to the president on the $245,000 in question.

At this refinery two new filter plants were installed early in 1922. In connection with these the company built the regulation clay burners and coolers for the burning of Fullers earth. Last year it became necessary to replace the old burners with a new type. The old burners cost $43,000 only five years ago.

When the old burners were placed in service experience indicated that such equipment would be useful many years, and a reserve for depreciation amounting to about 6 per cent a year was set up on the books. In the last five years this depreciation reserve amounted to only $13,000. The replacement with a new furnace made necessary the writing off of $30,000 as obsolescence.

In the light of present experience a reserve for depreciation and obsolescence on this equipment should have been 20 per cent a year to have completely written off the old burners by the time new ones were necessary.

THE same company has replaced part of its old shell stills with new type pipe stills which have increased the yield of gasoline by skimming. The new pipe stills have been equipped with new bubble towers and run-down equipment needed to round out the distillation system.

Shell stills replaced last year were built between 1920 and 1926. The reserve for depreciation on them has amounted to a little more than one-third of the original cost. There remains $115,000 which has not been charged off the equipment account.

$10,000,000 of Equipment Scrapped in Five Years

THE necessity for large write-offs for obsolescence of refinery equipment, was illustrated recently by an officer of one of the largest refining companies to a National Petroleum News reporter.

"Equipment at one of our refineries cost about $30,000,000. In the last five years we have scrapped $10,000,000 of equipment, or one third of the value of the whole plant not because the equipment was worn out because advances in refinery practice has made the equipment obsolete. One set of fractionating towers was scrapped before all the towers were completed because a better type had been developed."

At the same plant the company has 10 old shell stills built during 1917 and 1918 which the treasurer says. "should really be replaced with pipe stills because of the comparative inefficiency of the old stills. These stills with their run-down equipment cost about $300,000, and we estimate that we have about $100,000 of this investment still on our books after depreciation."

REFERRING entirely to the distilling equipment he said, "In 1926 we installed modern pipe stills which have practically displaced the shell stills. Therefore, considering the depreciation we have applied to date, we now have approximately $215,000 of this investment which should be written off on account of obsolescence."

In 1926 this refinery produced 24,522,000 gallons of gasoline. If all the obsolescence to be written off now is to be charged back against 1926 operations the cost of each gallon of gasoline produced that year will be increased 1 cent a gallon. It is the opinion of officers of the company that the obsolescence has taken place during the past two years, since it has been in that period the most rapid advances have been made in refining practice. With half the loss charged to gasoline in 1926 and half to 1925 the 1926 cost figures must be increased ½ cent a gallon to arrive at a true cost

The book value of this refinery at the end of 1926 before depreciation, was approximately $3,000,000. Deducting reserves for depreciation the value is almost $2,000,000. On the depreciated value the actual obsolescence sustained during the past two years has been 6.25 per cent a year.

THE past few years the refiner mentioned has been charging off 10 per cent a year for depreciation of cracking equipment, but on the basis of its present experience it has changed to 20 per cent.

This increasing rate of obsolescence of cracking equipment is a problem confronting a number of refiners in the Mid-Continent field who installed cracking plants from two to three years ago. Even those who have been charging off 20 per cent a year are coming to the conclusion this amount will not cover both depreciation and obsolescence.

It was only a short while ago that the usual cracking unit was built to handle 500 barrels of charging stock a day. A little later capacities were increased to 750 barrels a day, then to 1000 and 1250 barrels per day. Present plants are being installed with a capacity of 2000 barrels per day and recently a contract was placed for the erection of a 2500-barrel cracking unit.

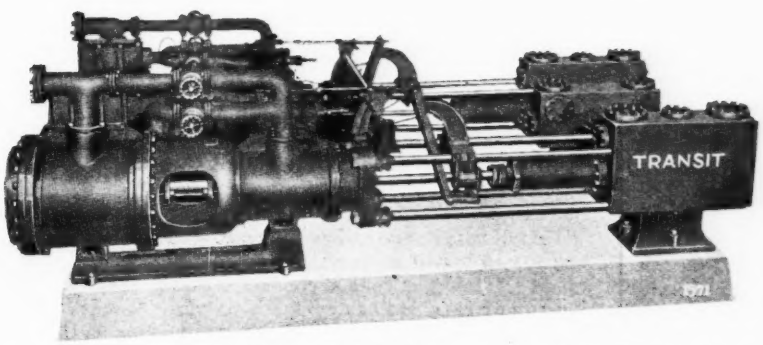
Three years ago a Kansas refiner installed a cracking plant which was the last word in efficiency at that time and cost $150,000. After three years of operation the management found it necessary to rebuild the unit. The cost of rebuilding was $75,000.

As originally installed the plant was equipped with 10 by 10-foot reaction chambers and a 50-tube furnace. The yield was approximately 35 per cent of finished gasoline from the charging stock. In rebuilding the refiner put in new 10 by 30-foot reaction chambers and replaced much of the other equipment, but did not build a new furnace. Rebuilding the cracker resulted in an increase of yield of gasoline to around 50 per cent of the charging stock, but did not bring the capacity up much above the original figure.

The vice-president of the company in charge of refining operations reported that to bring the capacity of the three-year-old units up to modern standards it would have been necessary to have junked all the old equipment and to have begun from the ground up.

ONLY a few years ago tube stills of cracking units were built with 50 tubes. The number of tubes was jumped to 60, 80 and 90 as capacities were increased. It is reported that some new plants being built in California will have more than 100 tubes in the furnace. Manifestly, it would have been impos-

Elements of Uncertainty Are Removed



TRANSIT 16 and 24" x 6½ x 18" Horizontal Compound, Twin Single, Direct Acting, Piston Type, Hot Oil Pump. This particular pump was designed for 500 lbs. working pressure. Capacity 100 Gallons per Minute of 600° F. oil Piston speed 60 feet per minute.

The fluid end of the above pump, however, is perfectly all right for 1000 lbs. working pressure, and will handle hot oil up to 1000° F.

IT TAKES heat and pressure to crack oil. The more uniform the speed and pressure of the hot oil through the tubes, the more certain will be the result (gasoline yield) in both quality and quantity.

TRANSIT hot oil pumps control the speed and pressure of the hot oil within very close limits. Speed and pressure thus controlled, in turn, exert a strong influence on maintaining constant temperature of the hot oil.

Thus by insuring unvarying speed; steady, even pressure, and constant temperature, TRANSIT Pumps exercise the closest control over these characteristics of the hot oil. This tends towards a certain definite gasoline yield, both in quantity and quality.

All fire hazards at the pump are removed. No one appreciates more than we that a leak means a flash, and a flash may mean an accident to an employee or a refinery fire—all in the twinkling of an eye. TRANSIT hot oil pumps have many features but the greatest of these is safety.

Heavy, forged steel fluid cylinders, tongue and groove flanged openings packed with sheet aluminum gaskets, insure against leaks, and furthermore, in order to prevent any possible leakage at the piston rods, we make a very deep stuffing box; so deep that the hot part of the rod never runs into the packing, much less into the open air. This stuffing box is water jacketed, and is equipped with a lantern gland to further insure that there will be no leakage of hot oil into the air. Lastly, the lantern gland itself is held in place by several rings of packing.

TRANSIT hot oil pumps are built in four types; Twin Single, Steam: Single, Steam duplex, steam and Vertical Triplex, Power. A word from you will bring complete descriptions.

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Pump & Machine Company
OIL CITY, PA.

New York Philadelphia Pittsburgh
Cleveland Houston Tulsa Denver

The Hotel Baltimore in Kansas City

500 ROOMS—*RATES*
Room *without Bath*—$2.00 *and up*
Room *with Bath*—$2.50 *and up*
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Marble Coffee Shop
TABLE D'HOTE
Lunch 75c
Dinner . . . . . 85c & $1.25
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PETROLEUM
GASOLINE
NATURAL GAS

Appraisals of Properties
Design
Construction
Examination of Processes
Tests

REFINERIES
NATURAL GASOLINE PLANTS
PRODUCTION

sible for the Kansas refiner mentioned to have virtually doubled the number of tubes in his stills without rebuilding the entire furnace.

From the foregoing it will be seen that the Kansas refiner has sustained a depreciation and obsolescence of more than 50 per cent in three years. All the equipment was not replaced, and that which is still being used has sustained some depreciation and obsolescence, in addition to the $75,000 actually spent for replacement.

As in the case of the Oklahoma refiner whose situation was described earlier, the Kansas manufacturer was not aware that his reserves for depreciation and obsolescence should be as great as experience has shown, and he must now charge off a large share of the $75,000 expenditure. He cannot add it to his capital account and place the cracking plant on his books at a value of $225,000.

This Kansas refiner has come to the conclusion it will be necessary to charge off at least 25 per cent a year on cracking equipment. He has evidence to submit to the Internal Revenue Bureau which will substantiate his claims for deductions.

Of greater importance even than proper deductions for tax purposes is the factor of gasoline costs to refiners. As refiners have increased their yields year by year until in Oklahoma and Kansas, for example, they obtained 5.35 gallons more from a barrel of crude in 1926 than in 1922, gasoline prices have been lowered radically from year to year, as compared with the cost of material.

SEVERAL refiners are coming to believe they have been much too optimistic in figuring their gasoline costs. Proper allowance has not been made for both depreciation and obsolescence, with the result that now or within the next year or two it will be necesary to write off large losses, which will show up as additional costs in making gasoline. The optimists who have thought that a gallon of gasoline cost 8 or 9 cents are confronted with evidence that the actual cost was between 9 and 10 cents per gallon depending on the cost of crude and plant efficiency.

There is no indication at present that refining equipment will become obsolete less rapidly in the future than the last two or three years. There is no standardized equipment for cracking, skimming or lubricating oil manufacture. It might well be said that every new installation renders partially obsolete the last previous installation.

Bearsted Dead, He Gave Dutch Shell Its Trade Emblem

CLEVELAND, Jan. 31

THERE died in London Jan. 17 Viscount Bearsted, one of the three organizers of the Dutch-Shell world-wide oil interests, and the man who gave these interests their shell trademark known to the oil man in this country through the operations of the Shell Co. of California, Roxana Petroleum Co., Asiatic Petroleum Co. and other subsidiaries.

When Lord Bearsted, then Marcus Samuel, first became interested in oil some 40 years ago, he was the head of M. Samuel & Co., a British trading house with branches in the East Indies. This firm had been started some two generations back by a Marcus Samuel who had a small curio shop in the heart of the East End of London, known as Houndsditch.

There were many children in the Samuel family who lived in the rear of the shop. One day they went on a holiday to the beach at Margate. They amused themselves by decorating their lunch box with seashells. Proud of their work, they took the box home. Their father took from it the idea of shell-covered boxes as souvenirs of seaside resorts. He prospered and established branches in British colonies.

Among other commodities his company sold Russian kerosene in the Far East. When the Marcus Samuel who later was made Lord Bearsted came to the head of M. Samuel & Co., he looked around for his own supply of petroleum and secured a concession in Borneo. He acquired other oil concerns in the East Indies and, in 1897, organized the Shell Trading & Transport Co.

At that time Henri W. Deterding was also active in the East Indies with his Royal Dutch Co. He had the oil and wanted to sell it in China and elsewhere in the Far East. The Shell company had the first tankers ever been put into use. Deterding made a deal with Marcus Samuel to transport Royal Dutch oil and from this start grew the vast oil interests controlled by the Royal Dutch and the Shell companies, the former having a 60 per cent interest in controlled companies and the Shell a 40 per cent interest, with Deterding as directing head.

Marcus Samuel was Deterding's first lieutenant. He still retained the trading firm of M. Samuel & Co., which got its start selling seashells. He became Lord Mayor of London in 1902, and was later Sheriff, a position of great importance and influence in England. In 1921, because of his services to England during the war, he was made a peer. He retired from active business some years ago, his place as chairman of the directors of the Shell Trading and Transport Co. being taken by his son Capt. Walter Samuel. Another son was killed at the front during the war. Lord Bearsted survived his wife only a few hours. Both were lying sick in the same house.

Up With the Gasoline Tax, Cry the State Assemblies; Hungry for Funds

By V. B. Guthrie
N. P. N. Managing Editor

CLEVELAND, Jan. 28

THE goose that lays the golden egg of easy-come state taxes, while it won't be killed, is going to be plucked much closer this year than ever before.

Pleased at the lack of protest from the public on 2 and 3-cent gasoline taxes, the politicians are seeking to have an extra cent or so added in many states. New York, Illinois and Massachusetts, states that have thus far stood out against the gasoline tax, are likely to fall, and New Jersey will remain the last oasis of tax-free motoring.

In some states the politicians are looking around also for new kinds of taxes to pass to the pubic through the oil industry. "Pile the load on a willing horse," seems to be the slogan for the legislative onslaught from the state capitols.

The state oil inspection departments, which a few years ago hung on to their jobs by the thin cord of kerosene inspection, feel the breath of hope again. In one state, South Carolina, the inspectors now seek to assume the qualifications of the trained chemist and pass on all lubricating oils sold within the state.

Arizona has brought out one of the old general inspection statutes, dusted it off and passed it into the hopper for new bills. True, it has dressed it up a bit by adding gasoline and lubricating oils specifically and then, to make sure nothing is left out the inspectors might wish to pass on, there is added, "and all other fluid substances produced in whole or in part from petroleum, coal or other bituminous substances."

The state legislature in Tennessee may have the idea that the gasoline selling business and the automobile industry to a man believes in the doctrine of evolution as the starting place for mankind; for its members have a bill before them making it unlawful to sell gasoline and automobile accessories on Sunday.

Following is a synopsis of some of the new bills affecting the oil refining and marketing industry which have been introduced in the various state legislatures since the first of the year. Bills affecting production have been omitted.

South Carolina

Sale of lubricating oils is forbidden in bill now before state assembly, except as samples are submitted to the state department of agriculture, and permits issued. This department is to have authority to make all necessary rules "to enforce standard as to safety, purity and value for lubricating purposes." Inspection is to be by the existing state oil inspection department without extra compensation.

Arizona

State oil inspection department created, chief inspector receiving $4000 and traveling expenses, chief deputy $2400 and various deputies $150 per month. State oil testing laboratory created, to cost $4000.

Federal specifications to be taken as standard. It is cited in the proposed bill as a duty of state inspection department to enforce this section; "No label upon or invoice for any gasoline, motor spirits, kerosene or lubricating oil shall contain any untrue or misleading statement and any person, firm or corporation . . . . who shall substitute any gasoline, motor spirits, kerosene or lubricating oil, or shall in any way adulterate any brand or grade of gasoline, motor spirits, kerosene or lubricating oil, with intent to deceive or defraud any purchaser, shall be subject to the penalties herein provided."

Inspection fee is 0.1 cent a gallon on all products subject to inspection. Fees are to go into a state oil inspection fund.

New York

The bill for a tax on gasoline provides that it apply on all sales of "distributors," this term including wholesalers bringing gasoline into the state and refiners within the state. It includes, "gasoline, benzol or other products suitable for use in propelling motor vehicles using combustion-type engines." Motorboats, tractors used exclusively in agricultural work, road rollers and motor vehicles running on rails or tracks are exempt.

Disposition of tax funds is: twenty-five per cent of amount collected in cities and incorporated villages shall be returned to them, "based on average amount of tax per automobile collected in the state multiplied by the number of cars registered as owned in such city or village"; fifty per cent to be paid into the state treasury to be used for maintenance and repair of improved roads of the state and the amount remaining shall be distributed and paid for the use of the several towns of the state to the supervisor of each town, "based on the ratio which the total mileage of the highways in such town—bears to the total mileage of such highways in the state."

The first 25 per cent paid to cities and incorporated towns goes into the general fund. The amount received by the smaller towns and villages is to be used for road improvement work.

The bill proposes to become a law July 1.

Massachusetts

Various regulatory measures affecting oil marketers proposed, in addition to a two-cent tax on gasoline.

Bills introduced in both house and senate provide for licensing distributors as a means for collecting the tax. Gasoline is to include benzol and any other product used for motor fuel. Sales for other purposes are to have refunds of the tax. Sales in interstate or foreign commerce are exempt. Bills introduced vary somewhat as to the disposition of tax funds. One provides it be spent by the state highway department in cities or towns according to the amount paid by such communities into the tax fund. Another bill provides one-third be expended thus and the remainder paid into the state highway fund. This bill reduces the 1927 registration fee to one-third the present authorized amount.

Another bill in this state makes it unlawful to build a filling station in a community where 80 per cent of the buildings within 400 feet are residential in character, unless consent of 60 per cent of those property owners is secured.

There is also a bill in the house in Massachusetts establishing fees for sealing vehicle tanks used as measures, which affects principally tank wagons. The scale of fees is dependent upon the size of compartments.

Alabama

Already has increased its tax from 2 to 4 cents. Proceeds from the increased tax are to go as interest payments on highway and bridge bonds to be issued and to provide a sinking fund to retire these bonds in 31 years.

California

One cent is proposed to add to the present two-cent tax, funds to go to a newly created state highway construction fund.

Maryland

Has bills increasing the present 2-cent tax by 1½ cents. This is opposed by the governor unless the funds are spent under state supervision.

Nebraska

Increase from 2 to 3 cents is proposed.

(Continued on page 58)

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Many Oil Jobbers are successfully promoting the installation of ample storage and *Yard Pumps* to worth-while customers, and in so doing insure the sale of gallons on route—Less Trips—More Gallons.

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It remained for Kellogg engineers, with their twenty-five years experience in air compression, to put a reliable compressor capable of heavy duty within the reach of every small garage or filling station.

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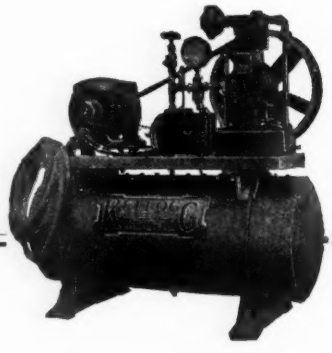

(Continued from preceding page)

North Carolina

Has a bill to levy a special gasoline tax of 1 cent in Rockingham county.

Texas

Would raise the tax from 1 to 3 cents.

Colorado

Proposes increase from 2 to 3 cents.

Washington

Also proposes to increase from 2 to 3 cents.

West Virginia

Would like to see 5-cent gas tax in place of present 3½ cents. Her neighbors have 2, 4, 4½ and 5-cent taxes.

Rhode Island

The governor has said it would please him to see the tax boosted 2 cents to 3 cents.

Wisconsin

Has a bill to increase tax 1 cent to 3 cents.

Michigan

First year with a 2-cent tax successful; it now considers 3 cents.

New Mexico

Would increase the tax to 4 cents.

Ohio

Knapp bill proposes posting of gravity of gasoline at the pump. Brown bill would tax benzol and kerosene when used as motor fuel on the public highways the same as gasoline is taxed now.

Painted and Well Kept Pumps Create Station Good Will

DAYTON, O., Jan. 29

RICHARD HARRIS is a composite of perhaps 12 to 15 million American motorists. He earns a good living, takes pride in himself, his family, and his possessions. He is not personally fastidious yet he takes pleasure in orderliness. He patronizes the stores that are clean and orderly because their attractiveness impresses him that they are worthy of his trade and his confidence.

When Richard Harris is motoring with his family on Sunday or a holiday and needs to refuel his car, he drives into a station where orderliness attracts him. A station that is ill kempt—literally shaggy in appearance—cannot inveigle his trade. Even on a week day when he is out in his car on business he buys most frequently at a place that appeals to him. He unconsciously shuns the run-down shack with its rusty, dirty equipment.

Why then do some filling station operators permit their plants and their equipment to become "down at the heels?" Nobody can answer the question, not even the guilty. They only plead, "This place don't pay very well and we ain't goin' tuh spend anything on't."

Maintenance of equipment and stations is one of the elements of good marketing in the opinion of J. C. Hanna, vice-president, National Recording Pump Co., Dayton. And it really costs nothing when prolonged life of equipment is considered.

A marketing company with more than just a few pumps should employ a trained maintenance man, Mr. Hanna said in discussing marketing equipment.

"Oil companies sell oil and are trying to educate the public to use more oil in automobiles, but they are poor practioners of their preachings," Mr. Hanna added. "Many marketers never put a drop of oil on their pumps, and then wonder what is wrong when the pump doesn't work as it did when new. Gears, racks and shafts should be oiled regularly. Packing should be changed once a year and oiled frequently. Pumps need cleaning to get out the dust and dirt the same as any other piece of machinery.

"Most persons appreciate the attention value of paint but some pump owners do not give their equipment much needed paint or when they do paint they smear the color all over the pump and make it appear old. New pumps have trimmings of nickle, aluminum or contrasting colors. Preserving the bright metal or using contrasting paint will keep the pumps looking like new. Striping helps a great deal.

"DIALS should be kept clean and the indicators straight. Nothing will give a customer an idea of being short measured more quickly than a crooked hand on a dial. Bowls of visible type pumps should be kept clean inside and outside. With equipment clean and a station neat, you will find few complaining customers. When a place looks run down you might not get complaints either because most who feel like compaining will go elsewhere to buy."

Impressions are powerful, Mr. Hanna said. Good impressions mean good will and good will means good business. Shrubs add a great deal to a service station, he said, and were worth many times their money cost. White washing of curbs gave the impression of cleanliness and helped to improve the picture a station made in the customer's mind.

Being a manufacturer, Mr. Hanna naturally would be in favor of the use of numerous pumps at service stations but he has a good argument to support the multiple pump idea.

If a motorist sees a place where he may drive and knows that he is set for service in a minute or two he will drive in. But if he needs gasoline and passes a station with only one, two or three pumps and sees a line of cars waiting to be served, the chances are he may drive to the next station.

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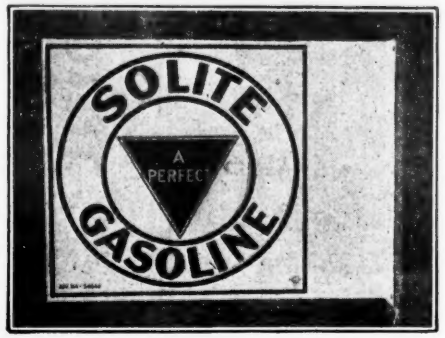
DURALAS Metal Signs, manufactured under an exclusive process evolved by W. F. Williamson research engineers, represent the outstanding value in the metal sign field. Steels made to our own specifications and enamels of the highest quality, made in our own plants, assure colors that will neither dim nor fade for two or three times the life of ordinary signs, a color surface which will neither crack nor chip nor peel, a sign investment value never heretofore approached at anything near their price.



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The Editors' Viewpoint

National Petroleum News

Keep Government Out of Business

ONE of the hazards of having a state government monkeying with a business is shown by the publicity which has been obtained in the newspapers by the Wisconsin Department of Markets in reply to comment on some of the Department's deductions as to gross margins made by National Petroleum News.

When a state official says something it is news, no matter what it is he is discussing. And it is bigger news if he makes charges against some business. But it is not news when an ordinary individual talks, even when he makes vigorous charges against a state department and other governmental bureaus. Nor is it news when the business interest that is attacked by a government replies. Such a reply may get a few lines from some newspaper editors, but no more.

National Petroleum News discussed, for the benefit of its readers, in its November 17 issue, a circular of the Department of Markets of Wisconsin in which circular the Department criticized the oil industry for having, as it said, a gross margin of 4.8 cents a gallon on gasoline last summer. The department issued a reply, which was published in the December 29 issue of National Petroleum News, together with comments. The Department also sent the reply to the newspapers of the state. Some of them, at least, printed it. While the editor of National Petroleum News has not tried to get his reply in any of the papers that printed this Wisconsin department official's statement, nevertheless, he knows from past experience that it would be virtually impossible to get any fair portion of his story in those papers and he speaks from a good many years of newspaper experience.

The state officials, as well as municipal and federal government officials, wield a considerable power through publicity. If the newspapers were more discriminating this power would be materially reduced and would not be, as it is, a menace to business. But newspapers aren't discriminating. They print the sensational. State and other government officers like to get their names in print because it helps in their business—that of getting votes and holding office. They can get their names in print by being sensational.

The unfair part of this Wisconsin Department of Markets' intrusion into the oil industry, and it would be true of any other industry, is that it uses this power of publicity against the industry without giving that industry a proper hearing before men competent to gather all the information and understand it. The Wisconsin Department of Markets will probably deny that the industry has not had a proper hearing, but we don't think that, with all due respect, the department in such hearings and investigations as it has held, has gone into the whole subject as thoroughly as it should have, if it intends to pass judgment upon the industry.

Whenever a state, or municipality, or federal government has a department or a commission monkeying around with a business, that business is going to suffer from these attacks.

Oil men in some of the other states have discussed the possible value of having a department of markets in their states. While the department in Wisconsin may have helped a bit in the price situation for a time, nevertheless, we strongly urge all men contemplating recommending such legislation that they make a more thorough study and look in the future a ways to see if they do not agree with the idea that government should be kept out of business.—W. C. P.

"Substitution" Talk Called Propaganda

THE ill-effects of the noisy propaganda put forth on the alleged motor oil substitution evil has been pointed out by L. V. Nicholas, president of the National Petroleum Marketers Association in a recent bulletin to his members. Mr. Nicholas condemns the propaganda as being aimed undoubtedly more to support the sales tactics of a few oil companies interested in national brands than to put down the alleged evil.

He refers to an investigation by National Petroleum News. However, National Petroleum News has not investigated directly the sale of lubricating oil for the purpose of ascertaining the amount, if any, of substitution. It did investigate the character of oil sold by shyster and poor-looking dealers and garagemen and found that that character was much higher than anyone had any idea of.

National Petroleum News has also seen the results of investigations made by many more or less disinterested people of the alleged substitution evil, and from it has obtained the opinion that the amount of actual substitution compared with the total amount of motor oil sold is infinitesimal.

However, that substitution may be quite a bit for some few companies who are putting out national brands so far in advance of their bulk stations, if any, that their salesmen and the other members of their organizations cannot properly police and protect and guide the dealers to whom they entrust their signs and their oils. The companies who confine their sales to the territory supplied by their bulk stations report practically no trouble with substitution.

Mr. Nicholas' remarks, pertinent as usual, are as follows:

"The daily papers are carrying an increasing amount of oil substitution propaganda. The Chicago morning papers, and leading papers in other sections of the country, carry headlines announcing arrests, charging oil substitution.

"A recent issue of the Saturday Evening Post carried what in my opinion is a very flagrantly misleading article written by an author called Mr. Sparks, entitled 'Fill 'Er Up.'

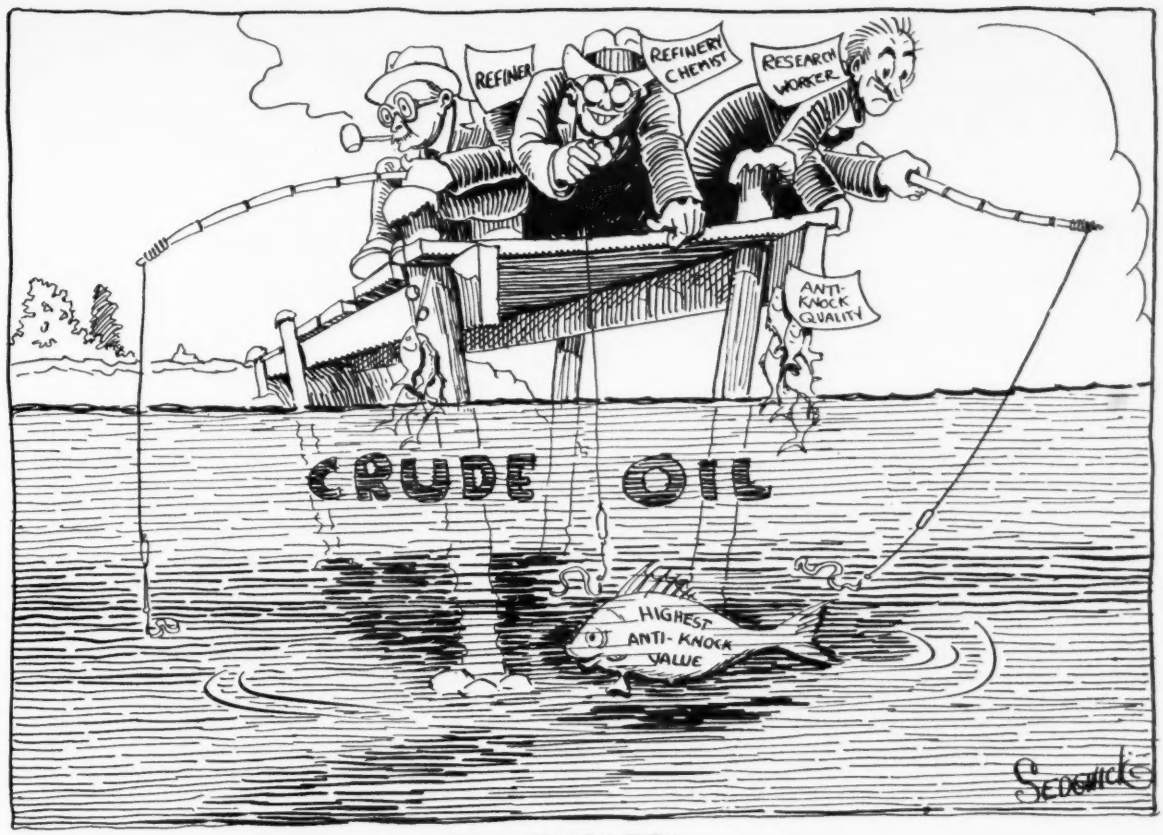
"This article I believe to be of inspired origin, and a very vicious and subtle type of propaganda. I am astonished at the Saturday Evening Post's having published it, and I am wondering just who Mr. Sparks is.

"I never heard of him before and I wonder if any of the rest of you ever heard of him. Is it possible the name 'Sparks' is the literary nom de plume of the sales manager for a great nationally advertised brand of motor oil? If it is, 'Sparks' is a good name, for his wires are certainly crossed.

"**We strongly advise** our members against lending themselves to this so-called campaign against oil substitution. It is misleading and industrially demoralizing.

"An honest, sincere campaign against substitution could be waged vigorously but quietly and be just as effective.

"The present campaign is not, I believe, primarily to correct the evils of substitution, but rather to sell more nation-



THE FOXY FISH

ally advertised oil in original packages by inferentially accusing a large group of a great industry of crookedness.

"The finding of a needle in a haystack is being exploited to 'indite' by inference a vast group of sincere business men.

"The National Petroleum News—I am told—made an investigation of the claimed substitution evil and found that it did not amount to over ½ of 1 per cent of the total volume sold, and that in many cases the oil substituted was equal to or better than the brand it was substituted for.

"An industry striving to re-establish itself in public opinion and spending large amounts in 'public relations work' does itself an injustice when it countenances the efforts of any of its group to cash in on public suspicion of any branch of the industry."

Where Ignorance Is Bliss

THE politicians in South Carolina would rush in where the automobile engineers, petroleum chemists and various scientific societies have consistently refrained from treading. They would lay down quality standards for lubricating oils and forbid sale in the state of oils that did not come up to those arbitrary standards.

In the past, the more experience and knowledge individuals and organizations accumulated as to the nature and requirements of lubricants generally, the more unwilling they have been to lay down any hard and fast standards the oils must meet.

They have recognized that our theories and knowledge regarding motor lubrication particularly were undergoing many changes; that research work in the oil industry was constantly improving the general quality of lubricating oils and that, generally speaking, the laboratory methods of testing oils were often unsatisfactory as giving an exact measure as to what those oils will do in service.

If the federal government, or any number of states, years ago, had laid down specifications, on which oils were to be sold, on the basis of what was then known on the subject of lubrication, the chances are that the manufacture of lubricants from new oil districts opened up would not have come about, at least it would have been held back many years. The nature of these lubricants from new fields was different from the established grades. Yet they proved to be suitable for lubricating purposes and enabled the oil industry to produce a quantity of lubricants for the motor vehicle and industrial world at low prices.

The government does lay down the standards upon which it will purchase lubricants for its own use, it is true; but those specifications are in the hands of a small group of scientists who advise with the oil industry, and are quick to change their standards as developments in the oil industry or industrial world show such changes are advisable.

The people in South Carolina need not for a moment think they are going to have any better grades of lubricating oils provided them if this inspection bill becomes law. It is solely a measure to set up more work for a state department, and the public will have to pay the cost of carrying on that work, which, in reality will be only a gesture.

While the present bill does not carry any provision as to a tax on sales of lubricants to cover inspection costs, that will be forthcoming. That extra 5 or 10 cents a gallon the purchaser of the oil will assume, without getting in return anything at all, either in extra quality or insurance against purchase of an unsuitable oil. To conceive of intricate tests on lubricating oils being carried on by appointed state inspectors is most ridiculous.

On the other hand, if the state sets an inspection fee of say 10 cents a gallon on lubricants, or thereabouts, it is going to encourage bootlegging of poor oil by a certain class of dealers. That won't be done by the oil companies; but the small number of garagemen and dealers who now sell cheap oil and charge the price of the highest quality oils will have just that much more temptation put in their way because there will be 10 cents more a gallon profit in the deal.—V. B. G.

Professional Card Directory

S. F. SHAW

CONSULTING ENGINEER

AIR AND GAS LIFT DESIGNS

301 Terrell Road San Antonio, Texas

W. FREDERICK SUENDER

Refinery Cost Accountant
Petroleum Economist
Statistician

247 PARK AVE. NEW YORK CITY

L. G. Huntley J. R. Wylie, Jr.
Shirley L. Mason

HUNTLEY & HUNTLEY

PETROLEUM GEOLOGISTS
AND ENGINEERS

Frick Building PITTSBURGH, PA.

PROFESSIONAL advertising keeps your name constantly before the industry you are engaged in. When the readers of *National Petroleum News* want professional services they will naturally turn to this directory.

THE COST IS SMALL

Single insertion—$5 per column inch. A discount of 5% is allowed on 13 insertions if paid in advance.

Gulf Coastal Water Shipments, Dec. Compared with Nov.

Company—Port	Coastwise Refined November	Coastwise Refined December	Export Refined November	Export Refined December
Standard of Louisiana				
Baton Rouge	1,081,238.00	847,101.00	574,059.00	737,698.00
The Texas Company				
Port Arthur	1,536,075.00	1,217,850.00	447,603.00	336,843.00
Gulf Refining Co.				
Port Arthur	2,280,735.95	2,833,004.80	193,472.74	217,896.75
Magnolia Petroleum Co.				
Beaumont	1,290,736.35	1,438,884.30*	.....	.....
Sinclair Refining Co.				
Houston	365,321.69	372,682.36	24,248.00	.....
Humble Oil & Refining Co.				
Baytown	985,364.77	1,295,343.69	843,611.89	1,163,821.35
Marland Oil Co.				
Texas City	.....	**	.....	**
Atlantic Oil Producing Co.				
Atreco	147,672.00	61,016.91	.....	.....
Galena Signal Oil Co.				
Houston	273,000.00	175,000.00	.....	113,000.00
Deepwater Oil Refineries				
Houston	.....	.....	.....	.....
Keen & Woolf Oil Co.				
Houston	.....	.....	.....	28,000.00
Pure Oil Company				
Smiths Bluff	211,782.66	132,474.78	8,172.66	61,164.15
Totals	8,171,926.42	8,373,357.84	2,090,567.29	2,658,423.25

	Coastwise Crude		Export Crude	
Standard of Louisiana				
Baton Rouge	2,007,640.00	1,864,479.00	.....	.....
The Texas Company				
Port Arthur	9,483.00	14,826.00	.....	.....
Gulf Refining Co.				
Port Arthur	230,919.09	618,418.62	.....	.....
Magnolia Petroleum Co.				
Beaumont	748,167.31	494,112.07*	.....	.....
Sinclair Refining Co.				
Houston	378,174.70	381,103.10	7,161.00	.....
Humble Oil & Refining Co.				
Texas City	666,436.00	1,052,058.00	.....	.....
Neches Terminal	58,413.00	72,256.00	.....	.....
Ingleside	62,631.00	307,812.00	.....	.....
Baytown	1,111,304.00	808,263.00	53,183.00	.....
Marland Oil Company				
Texas City	.....	**	.....	.....
Atlantic Oil Producing Co.				
Atreco	327,263.02	441,667.98	.....	.....
Beaumont	233,656.04	79,702.53	.....	.....
Pasadena	235,254.25	315,303.12	.....	.....
Smiths Bluff	.....	79,612.94	.....	.....
Swiftsure Petroleum Co.				
Texas City	418,340.00	243,766.00	.....	.....
Crown Central Petroleum Corp.				
Houston	313,525.35	474,310.91	.....	.....
Pure Oil Company				
Smiths Bluff	533,606.75	428,622.02	.....	.....
Totals	7,334,763.51	7,676,313.29	60,344.00	.....

*Magnolia Petroleum Company makes no distinction in reports between coastwise and export shipments
**No report.

Large Crude Output Gain Expected in Colombia

CLEVELAND, Jan. 29—The opening of the Andean pipe line in Colombia has permitted an increase in Colombian production from 1,006,708 barrels in 1925 to 5,684,015 barrels in the first 11 months of 1926. The capacity of the line, which is 30,000 barrels a day at present is being increased to 50,000 barrels daily and it is predicted that this enlargement will permit production in Colombia to exceed 15,000,000 barrels this year.

The production figures were issued lately by the Department of Commerce from reports of Commercial Attache Boaz at Bogota and Vice Consul Rand at Cartagena, the seaboard terminus of the pipe line.

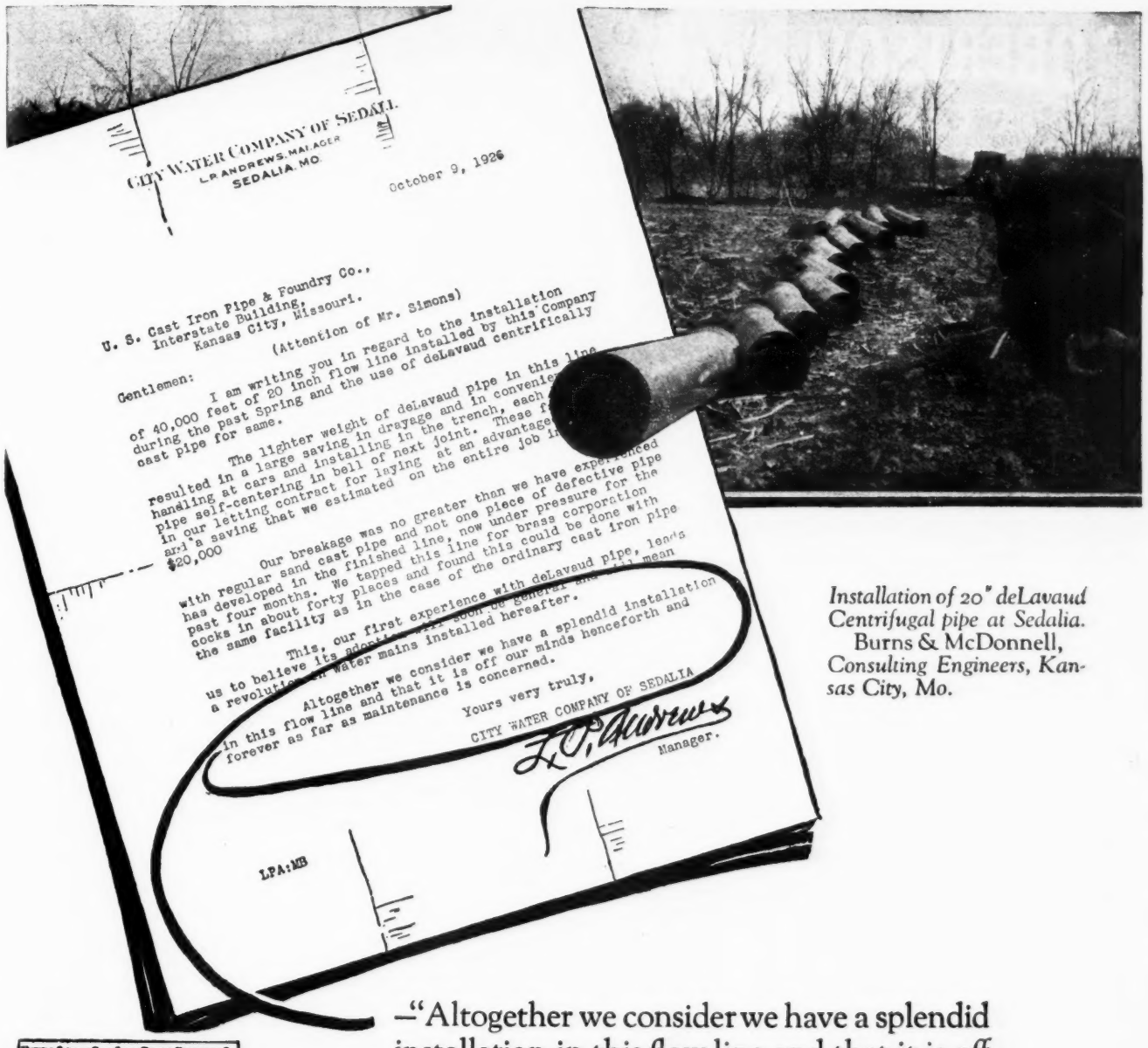
The November exports of Colombian crude amounted to 1,061,713 barrels, or almost a million barrels more than the November, 1925, exports. The November, 1926, shipments were the largest in one month from Colombia and were divided thus, 909,000 barrels to the United States, 88,219 barrels to Argentina, and 64,494 barrels to England. Monthly shipments in 1925 and 1926 were:

	1925 Barrels	1926 Barrels
January	90,545	42,334
February	100,803	40,554
March	77,816	53,163
April	111,807	175,180
May	109,888	253,100
June	97,624	576,638
July	29,414	784,503
August	40,505	908,765
September	63,742	1,012,423
October	126,348	775,642
November	71,832	1,061,713
December	86,384	.....
	1,006,708	5,684,015

Succeeds Nashville Jobber

NASHVILLE, TENN.—The partnership of Eakin & Co., jobber of petroleum products here, was dissolved on Jan. 1. J. H. Fitzpatrick, a member of that partnership, will continue in business as the J. H. Fitzpatrick Co., with offices in the Independent Life Bldg. here. The Fitzpatrick company will handle products of the same refineries which had been handled by the Eakin company.

MT. STERLING, O.—Sterling Petroleum Co. has just completed installation of 120,000 gallons additional storage here, according to C. H. Clark, manager.



CITY WATER COMPANY OF SEDALIA
L.P. ANDREWS, MANAGER
SEDALIA, MO.

October 9, 1926

U. S. Cast Iron Pipe & Foundry Co.,
Interstate Building,
Kansas City, Missouri.

(Attention of Mr. Simons)

Gentlemen:

I am writing you in regard to the installation of 40,000 feet of 20 inch flow line installed by this Company during the past Spring and the use of deLavaud centrifically cast pipe for same.

The lighter weight of deLavaud pipe in this line resulted in a large saving in drayage and in convenie handling at cars and installing in the trench, each pipe self-centering in bell of next joint. These f in our letting contract for laying at an advantage an'a saving that we estimated on the entire job i $20,000

Our breakage was no greater than we have experienced with regular sand cast pipe and not one piece of defective pipe has developed in the finished line, now under pressure for the past four months. We tapped this line for brass corporation cocks in about forty places and found this could be done with the same facility as in the case of the ordinary cast iron pipe

This, our first experience with deLavaud pipe, leads us to believe its adoption will soon be general and mean a revolution in water mains installed hereafter.

Altogether we consider we have a splendid installation in this flow line and that it is off our minds henceforth and forever as far as maintenance is concerned.

Yours very truly,

CITY WATER COMPANY OF SEDALIA

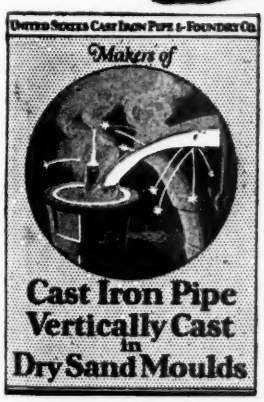
L.P. Andrews
Manager.

LPA:MB

Installation of 20" deLavaud Centrifugal pipe at Sedalia.
Burns & McDonnell,
Consulting Engineers, Kansas City, Mo.

—"Altogether we consider we have a splendid installation in this flow line and that it is off our minds henceforth and forever as far as maintenance is concerned."

Write for special literature covering specifications, uses and manufacture of deLavaud Centrifugal pipe.



United States Cast Iron Pipe and Foundry Company

SALES OFFICES

Philadelphia: 1421 Chestnut St.
Chicago: 122 So. Michigan Blvd.
Birmingham: 1st Ave. & 20th St.
Buffalo: 957 East Ferry Street
Cleveland: 1150 East 26th Street
New York: 71 Broadway
San Francisco: 3rd & Market Sts.
Pittsburgh: 6th & Smithfield Sts.
Dallas: Akard & Commerce Sts.
Kansas City: 13th & Locust Sts
Minneapolis: 6th St. & Hennepin Ave.

General Offices:
Burlington, New Jersey

ROBERTSON
METAL
SIGNS

Snappy Signs Snap up Sales

All metal sign value lies in metal sign ability to catch the eye of the passer-by and flash a message before he looks away.

This ability of a snappy sign to "snap up" sales depends upon effectiveness of design, striking color effects, and skillful workmanship.

The presence to an unusual degree of these three sign fundamentals in Robertson signs accounts for Robertson sign success—and is the main reason why they are this very hour helping to make so many prominent products still more prominent from coast to coast and gulf to lakes.

An assortment of signs built by Robertson will be sent for inspection upon request

The W. F. Robertson Steel & Iron Co.
Elwood-Myers Co., Div.
Springfield, Ohio

Let us Quote on Your Requirements

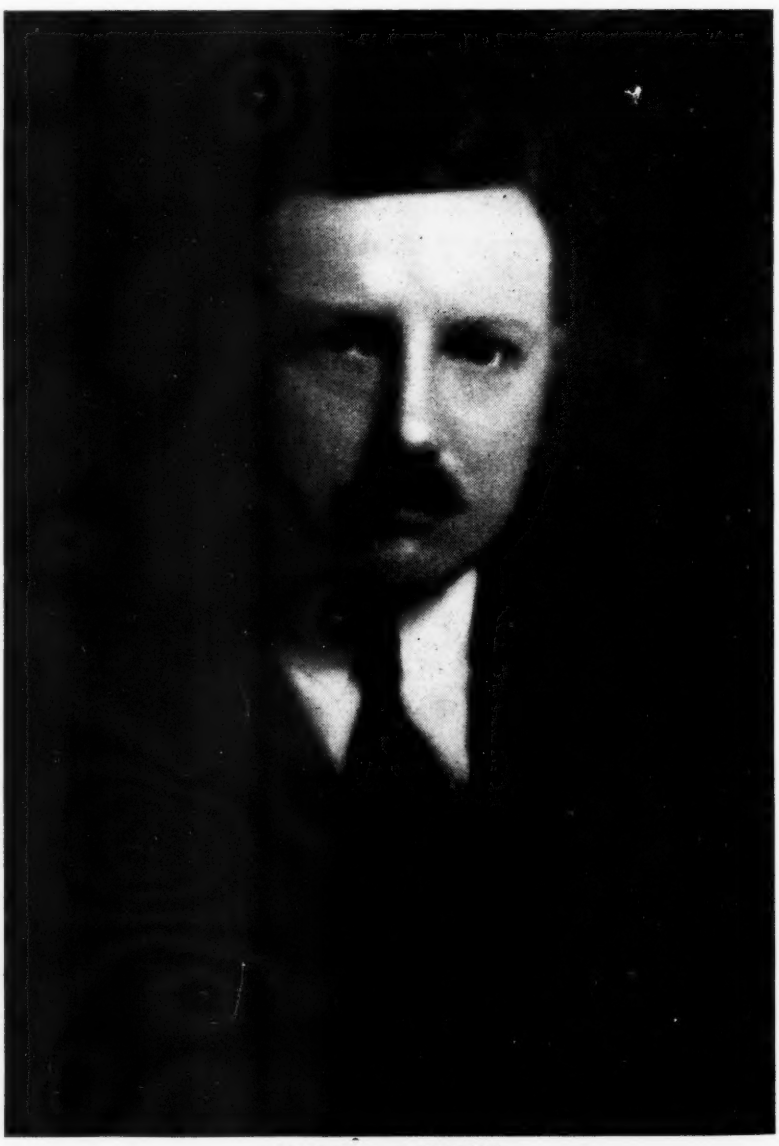
Head of Galena Oil in France Made President of Parent Company

NEW YORK, Jan. 31

MICHEL J. A. BERTIN, who has had many years of experience in various industries, including railroad and the oil supply business, and who lately has been managing director of the Societe Anonyme des Huiles Galena, Paris, France, has been elected president of the parent company, Galena Signal Oil Co. of Pennsylvania, with headquarters at New York. Mr. Bertin succeeds L. J. Drake, who resigned.

Entering the oil supply business in Paris in 1920 as a representative of American manufacturers, Mr. Bertin took charge of the Galena company's interests in France and neighboring countries. Later he became managing director of the French subsidiary and subsequently was elected chairman of that company, in which capacity he served until his election as president of the parent corporation.

After receiving academic and engineering degrees in France, Mr. Bertin took a special apprenticeship for four years at the Altoona, Pa., shops of the Pennsylvania railroad. He returned to France in 1914 when war broke out and was attached to the engineering corps of the French army, in which he later became a captain. He was assigned by Premier Georges Clemenceau to the American expeditionary forces as aide to Gen. W. W. Atterbury and later represented French General Headquarters at the American G. H. Q., G4. He received the American distinguished service medal from Gen. Pershing. Between the signing of the armistice and demobilization, he served in the ministry of public works and railroads.



MICHEL J. A. BERTIN
Until recently managing director and chairman of the board of the Galena Signal Oil Co.'s French subsidiary at Paris, who has been elected president of the parent company with headquarters at New York City

Local Happenings Furnish Sales Ideas To Alert Companies

CLEVELAND, Jan. 27

MANY successful and unique schemes are being developed by the smaller oil marketing companies to aid the sales of their products.

Only a few years ago it was thought that gasoline, kerosene and even lubricating oils were such prosaic commodities, much like sugar in a grocery, that they could not be sold by the same methods used with products of more individual characteristics. What was done in both sales and advertising was generally by the big, more highly organized companies.

Alert jobbers, are often quick to take advantage of local, even temporary, conditions to advertise and push the sale of their own line of goods, while the agent for the companies marketing nationally, because of the red tape involved, cannot move so quickly, even if he had the ideas.

The extent to which service to the motorist has been developed at gasoline and oil stations has given the local jobber another strong point to work into his sales methods.

Of late years, also, the entire country has learned much about the nature and value of advertising. The oil jobber, even the small companies, have improved the advertising of their products greatly.

Following are given some instances of novel ideas in advertising and sales methods recently brought to the attention of National Petroleum News.

* * *

Even such an unfavorable business condition as a bank failure was used by Howard B. Holmes, proprietor of a service station at Hudson, Iowa, to help tide his business over a critical time for the community.

Mr. Holmes wrote his customers—or at least that part to whom he believed such an appeal would not be objectionable—saying that the station's funds were tied up on account of the failure of the bank, and asked them for their business for this reason. He pointed out that that would also help the community to recuperate from the loss.

He said he was surprised at the response this appeal received.

Again, Mr. Holmes used the attraction of American Legion band concerts at Waterloo to help boost his gasoline and oil business. He mailed cards to his trade telling them about the concerts and advising them to stop for oil or gasoline at his station, which was on the road to Waterloo.

He ties customers to his station by sending cards to new ones thanking them for their patronage and inviting them to stop again. He also asks for suggestions about how to better his service.

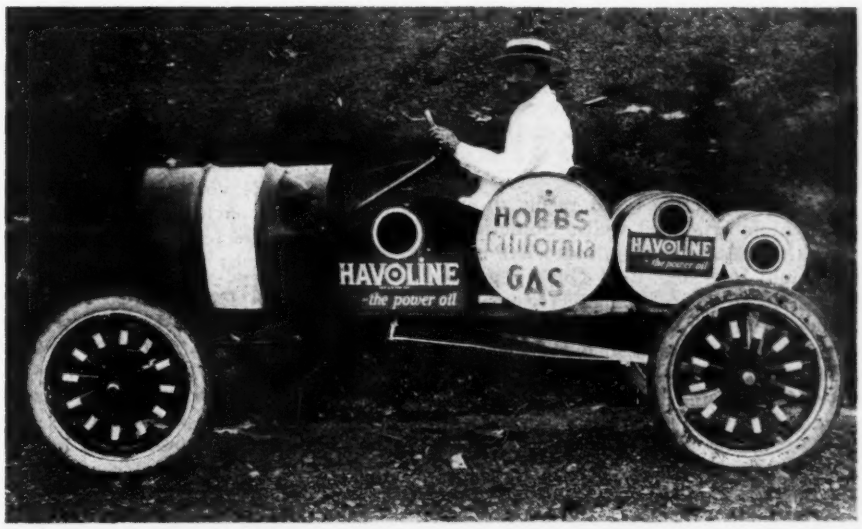
* * *

Herman Miller, vice-president, I. Miller & Co., Inc., Sioux Falls, Iowa, tells how his company increased its sales by testing headlight beams of 2500 cars, when the state specified the length of the beam and the angle it must follow. The city automobile club, with state officials, conducted a test for 10 days but could not handle all the cars, so the Miller company began where they left off.

* * *

Free delivery of their cars to and from any hotel in the town is offered by the Standard Service Station of Steele, Mo., as an attraction to tourists. The car can then be serviced leisurely while the owner and his party are at the hotel.

This company also features giving correct and up-to-the-minute road information and passes out a card on which towns on the highway between Cairo and Memphis are listed.



It may not be a Rolls-Royce but it gets attention. Its body is built of steel drums on a Ford Chassis. It is used for advertising by the Hobbs Gas & Oil Co., Shenandoah, Pa., distributors of Havoline products. Leo Hobbs, designer and builder, also proprietor of the Hobbs company, is at the wheel

Tell Us Your Stunt

NATIONAL Petroleum News herewith publishes a few novel sales, advertising and service ideas which have been worked up by the smaller marketing companies, even companies operating one or two gasoline stations only.

It will publish from time to time other unique sales and advertising plans sent in by oil companies.

Fifty thousand road maps were distributed to motorists in its territory last year by the Independent Lubricating Co., Topeka, Kans. The expense was split with the company's dealers by printing the advertisement of the Independent Lubricating Co. on the inside cover of the map and the dealer's ad on the outside back cover.

* * *

Keeping tab on the condition of his patrons' cars is the method used by W. C. Thomas, owner of the Thomas Auto Service Co., Nashville, Tenn., to keep the service he offers in their minds.

As he is around his station, he keeps notes on the cars that are brought in for greasing or even stop for gasoline. If he sees anything about the car that needs attention, that is something outside of oil or grease, he later writes the owner a letter giving him this comment.

This letter receives more attention than when mentioned to the owner at the station and also removes the impression that the suggestion might have been made just to get the business for the station.

* * *

Green trading stamps are issued by the stations of Gibbs Bros., Portland, Ore., with purchases of certain amounts of oil or gasoline, just the same as they are given out at retail stores in the city.

* * *

Lee Hobbs, proprietor of the Hobbs Gas & Oil Co., distributor of Indian Refining Co. products at Shenandoah, Pa., having considerable mechanical ingenuity, built a body for a trick car out of Havoline steel drums. The hood was a regular 55-gallon drum with one side

cut out. Another drum with the sides cut out was the seat. A 30-gallon drum behind the seat was the fuel tank and a 100-pound grease drum, behind that, carried tools and personal belongings.

Wherever Mr. Hobbs drove the car a crowd collected, whereupon literature concerning Indian Refining Co. products was passed out.

* * *

"Gold", which has started more rushes than college freshmen, was the keynote both in color and phraseology of the advertising on the Independent Oil Co., Rosslyn, Va., in introducing a new gasoline.

"Gold is sometimes the result of investment in crude oil wells. Sometimes it isn't. But, every day, motorists may save Gold by using Best Quality gasoline, said the company's advertisements. Pumps were painted gold and gold used throughout the color scheme wherever possible. Trucks were trimmed in gold lettering and gold bands. Gold blotters were sent out to the trade.

* * *

A permanent increase of 33⅓ per cent in business, was the result of a 30-day advertising campaign of McKay Bros. & Co., Inc., Canton, Miss., who own and operate five combination filling stations and grocery stores there.

The campaign was to sell 1000 gasoline coupon books at $10 each, which would help to build up business on a permanent basis. In addition, a receipt good for $10 on any automobile purchased from Beavers Motor Co., Canton, and a free chance on a new Chrysler, were given with each coupon book. The $10 receipts were supplied to McKay Bros. company free of charge by the motor company, but the cost of the Chrysler and other campaign expenses were shared equally by the two companies.

The manner in which the campaign was conducted, the results, profits and expenses of it, are told by J. A. McKay, president:

"Our stores are located at the edge of town and, where possible, at the intersection of several converging roads which bring in the traffic from a great farming district. These have been operated on this plan for three years and have proven a success. It will be seen, therefore, that the results achieved during this campaign cannot be taken to apply literally to up-town service stations carrying no other lines than gasoline and oils. On the whole, however, we believe that the sale of gasoline and oil alone would have obtained more favorable results by the filling station being located in the business district.

"During the first 30 days our business increased 80 per cent and remained at that level throughout the sale. Since the sale has been consummated, our business has a permanent increase of 33⅓ per cent. Of this increase, about 65 per cent was new business and 35 per cent represents coupon books purchased by our old customers.

"When our sale was first planned, we expected to dispose of our coupon books evenly over the territory our stores served, but we were disappointed in this, finding that the average man from the country was not willing to make the sacrifice to advance $10 for gasoline. The people in town who worked on regular salaries proved to be our regular customers during this sale.

"The effect of the sale on our general mercantile business was enormous. We mean by this, the total increase in our business could not be counted by incoming coupon tickets. The stores' increase of $1000 for that month did not show up more than $600 in coupons. Therefore, trade condition being equal, we draw the conclusion that the $400 increase was due to the general advertising produced by the sale.

"Some would probably be interested to know what percentage of coupon tickets were lost and failed to show up. Several $10 books were lost and in addition to this, when a book was used up to 3 or 4 cents, there was a good probability that the book would be mislaid and the few coupon tickets left would be lost or destroyed and never come in. We recorded the tickets as they were received at the filling station and found that 2 cents out of every book was lost. It is much to our advantage to have each coupon book used up to the last pennies as the manager of the store then has a favorable opening for the sale of another book.

"Our campaign gains estimated accurately were:

Profit from motor oil	$ 600
Profit from gasoline	1,028
Total	$1,628
Expense	900
Net profit	728
Profit from general increase in business	1,800
Grand Total	$2,528

"Another reason for the increase in our business aside from the sale of coupon books was the general advertising that this compaign did for us. The campaign was talked of. A great many stopped to get information concerning it.

Connecticut Lists Fundamentals That Govern Station Licenses

CLEVELAND, Jan. 29

FUNDAMENTALS entering into the licensing of projected filling stations by the state of Connecticut, have been listed in a recent circular published by Robbins B. Stoeckel, commissioner of motor vehicles, who supervises filling stations as well as the licensing of motor cars and the collecting of gasoline taxes. These are the chief factors governing the granting or refusal of licenses:

Size and shape of lot; proposed placing of the pumps; amount of traffic of all kinds which passed the proposed site, its frequency and speed, and contour of the highway.

"Entrances and exits are especially important," Mr. Stoeckel said in the circular. "If it be necessary to turn left through fast or congested traffic that will usually be sufficient reason for rejecting a proposed station. If the turns are in such short radius that a car coming in or going out has to back, or go into the lane of opposite traffic on account of narrow streets, it is at once obvious that no station should be allowed. So, under pressure of these necessities, certain standards for universal application have been established, and there is even at present a more particular and specific method of administration being projected.

"The distances used for rules are based upon actual tests made by the Connecticut State Highway Department with all types of cars in relative sizes. Any lot on a straight street or highway must have at least 80 feet frontage to be favorably considered. On such a lot the state will examine into the entering and exit turns and all the traffic complexities surrounding, and if these are favorable the certificate can usually be granted.

"The corner lot offers an entirely different problem, occasionally much more difficult, because the traffic is on two streets instead of one with a corner which complicates the turns. So, in addition to the details to be considered on a straight traffic run, there must be a study of crosswalks, pedestrian traffic, sidewalk hazards and possibly trolley lines. If these are all favorable, it still remains necessary to get enough turning room. On this kind of a lot 55 feet to a side is none too much. But it does not necessarily follow that because the lot is big enough a station can be had. The determination is much broader than one based on simple statistics. The lot sizes are the minimum shown by test to be safe."

The state has supervision over the location of filling stations along state highways and in municipalities of less than 10,000 population. In cities of more than 10,000 population, the state still has supervision along trunk line and state aid highways. One of the most difficult things with which the state has to contend, Mr. Stoeckel wrote, was the desire of cities to license stations which would improve the city's appearance but which the state authorities believed would be built in an unsafe place. Sometimes the state has refused to issue a safety certificate to an oil company even when city officials have recommended that a certificate be issued.

Legitimate Jobber Entitled to Lower Price Than 'Car a Month' Dealer

By Harry E. Lynch
Navy Gas & Supply Co., Pueblo, Colo.

INNUMERABLE outbreaks in slashing of prices by individuals who purchase gasoline in lots of one to three cars a month, have been occurring during the past year and have now reached a point where it either will be necessary for the legitimate jobber and oil company to abandon their wholesale gasoline business or else suffer a loss by meeting the cut-rate prices offered through the stations of the "car a month buyers."

Under present conditions it is next to impossible to meet their prices and remain in business for any length of time because they purchase one to three cars a month at the same price that a legitimate jobber is compelled to pay for his requirements amounting to 10, 20, 50 or more tank cars a month.

THESE "car a month buyers" have no large investment nor do they need to have same, whereas the legitimate jobber is forced to invest thousands of dollars in order to maintain his business as it should be conducted.

We will take, for instance, a Mr. Blank who decides to start in the filling station business. He selects a site upon which, in his estimation, would be a good spot for a filling station. A storage tank, large enough to hold about a tank car and a half, is then purchased and buried on this lot. Then a small service station building is erected, the pumps installed and connected directly to this storage tank and, after installing an air compressor, drums for lubricating oils (which are gladly furnished gratis by the oil companies and jobbers) and a few other necessary items, he puts out his shingle and is ready to do business.

The entire layout has cost less than $3,000 and perhaps this equipment has all been purchased on the installment plan, which would cut the amount of capital actually invested to about one third of $3,000. A car of gasoline of course would have to be purchased from some refiner who has been picked out from a dozen or more to whom he has wired for prices, and this car will undoubtedly be shipped on a sight draft basis, due to the modern and perfected credit systems of the present day refiner. This will add another thousand dollars to his investment but he still has less than $3,000 tied up if he has started on the installment plan.

MR. BLANK starts by having an opening day on which he gives away nearly anything from "soup to grapenuts" with each five gallons of gasoline purchased through his station on this day. If he still has some of the premiums left, he continues this deal on the following day. He is actually cutting the price of a staple and necessary commodity in doing this and is drawing his trade from every dealer in his town. (The larger companies have, at times, also engaged in this opening day stunt.) After the opening day business falls and slackens to a very low figure. Mr. Blank becomes terribly excited because Mr. Jones across the street, who has been in business for some time and has established himself through his efforts in rendering service, courtesy and quality, is doing a fairly nice business and seems to be keeping busy. Mr. Blank immediately concludes he will put a cut price into effect and get what he terms, "his share of the gallonage." This naturally draws the trade to him from every part of the city as the majority of the car owners figure that "gasoline is gasoline" and patronize the station that is selling the cheapest.

Mr. Jones, seeing the cut rate signs and noticing his customers' quitting him, decides that Mr. Blank is not going to hand him a package and cuts his price a cent or 2 under Blank's, which is already under the prevailing market price. This is kept up by both until bedrock is reached and, as they have no large overhead expense and salaries, such as the legitimate jobber, they continue indefinitely on the bedrock.

IN the meantime, what are the legitimate jobbers and the oil companies doing? What can they do except to sit still and hope for the best. Overhead expenses, delivery costs, salaries, taxes and so forth, must be paid promptly by the jobber if he desires to maintain his rating, so it is duly essential that he sell at a price which will bring him the required amount of profit to maintain a good standard. He cannot cut and slash his prices merely to satisfy his desire of not letting Jones and Blank get the best of him. Thus Jones and Blank continue the fight, not caring whether they make any money or not so long as they are satisfied that each is causing the other a lot of grief as well as

Our Christmas Gift To You
Black Mule
Gasoline
16c
Gas with a Kick
TO THE PUBLIC
In keeping with our policy of always giving you more for your money, we are inaugurating this 16c gasoline sale for Friday, Saturday and Sunday.
We take this means of expressing our appreciation of your past patronage and hope to merit a continuation of it thru the new year.
Pueblo Gas and Service Station
Corner Hobson and Santa Fe.
Opposite Pueblo Flour Mills.

Santa Claus rode into Pueblo, Colo., on Black Mule, this advertisement from the Pueblo Star-Journal indicates

GLOBE
Air Compressors

GLOBE

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Your customers expect Free Air Service — the dependable, convenient kind. The Globe Air Compressor guarantees this kind of service — which in turn produces for you good will, oil and gas sales, and a reputation for satisfactory attention.

The Globe Simplex Two-Stage Type C, illustrated, is the only air-cooled compressor available today that gives continuous 24-hour duty under high pressure. Built in 1-2-3 H. P. sizes. Other Globe Compressors in all sizes from 1/4 to 5 H. P. — capacity range 1.2 to 20 cu. ft. per minute.

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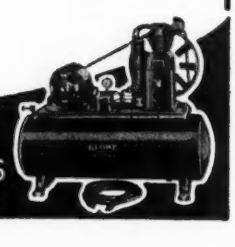

showing the other dealers how "powerful" they are.

The jobber is besieged with complaints and howls from his trade as to when he is going to meet the reduced prices in effect by Jones and Blank. Threats to quit him are hurled and constantly bemoaned and the life of a jobber during this time is everything but a "paradise." He is even afraid to stay in his own office and his own city after a few days of the price cutting because of the complaints and whims of his customers.

IN the meantime, the refiners continue to sell Jones and Blank a tank car or two of gasoline a month, probably an extra one made necessary by the increased business of price cutting, at exactly the same price that the legitimate jobber, who is maintaining the price, is compelled to pay for the same grade product. This is where the question of vital importance to every jobber in the industry enters.

WHY IS A BUYER OF ONE TO THREE CARS OF GASOLINE A MONTH ENTITLED AND QUOTED THE SAME PRICE THAT THE LEGITIMATE JOBBER HAS TO PAY FOR HIS REQUIREMENTS AMOUNTING TO TEN, FIFTY OR MORE CARS PER MONTH?

Until this question is settled and some definite policy established, there will be price wars among the "one car buyers" and no one can stop them regardless of what methods are tried and what efforts are used to bring the price cutters together towards reaching an agreement.

The only possible solution and salvation for the jobber is for the refiner to make a distinction in tank car prices to the purchaser, based on the gallonage consumed, much on the same order as the tank wagon differentials now in effect in certain districts.

The refiner will suffer no loss in adopting this system, in fact he will receive more profit than will be made from the smaller orders, which require the same routine to handle as a large one.

FREE

Choice of

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1 pound can Cup Grease
1 box Tire Patches
1 pint brick Polar Ice Cream with each
7-gallon purchase of New Navy Gasoline.

FORBUSH

Filling Stations

Grand Ave. Union Ave.

Inside and outside lubes used to lure customers by Forbush of Pueblo, Colo.

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17 Cents
SUNDAY

Nelson Service Co.
Third and Grand

Christmas Trees and Holly of Fine Grade
Now Available

Only the mistletoe was missing from this Yuletide offering of a Pueblo, Colo., cut price dealer

A legitimate jobber is the real distributor of the refiner's products and a system like the foregoing means preservation for the jobber.

Anderson Prichard Will Open Western Plant

Staff Special

TULSA, Jan. 28. — The Anderson-Prichard Oil Corp., Oklahoma City, has taken over for operation the Wichita Falls refinery of the Western Oil Corp. of Texas. Sales of refined products from the plant will be made from the general sales offices in the Colcord building at Oklahoma City.

Crude oil for the operation of the plant will be furnished by the Western as a part of the contract relationship between the two companies. Operations will be started about Feb. 1.

The Western Oil Corp. plant formerly was owned by the Sunshine Consolidated Oil Corp. which was liquidated through a receivership. It is a skimming plant with a capacity of 2000 barrels per day. John T. Miller will continue as superintendent.

Anderson-Prichard is making changes in the tower hook up at the plant and putting it in condition to produce special products. The same company has a refinery at Cyril, Okla., and another at Colorado, Texas, where V. M. & P. naphtha, rubber solvents and Stoddard's solvent are manufactured. The Wichita Falls plant will enable the company to increase its output of these commodities.

TULSA, Jan. 28.—Dan L. Mahoney, recently scouting the Ardmore district for the Sinclair Crude Oil Purchasing Co., has been transferred to Casper, as resident agent. He succeeds Wood E. White, who is now in Tulsa as chief scout. C. M. Seren, has been transferred from Holdenville to Ardmore and R. T. Miller goes from Pawhuska to Holdenville.

Preparing the Oil Fields for a Year of Much Greater Safety

By Ray E. Miller
Manager, Safety Department, the Marland Companies

A NEW year is under way and we are looking backward over last year's accident experience in the hope of finding material to fortify the many weak spots of our accident prevention defenses through which personal injuries have sneaked in to confound our safety record.

In no branch of the petroleum industry are such defenses so difficult of maintenance as in drilling and producing operations. Here the large majority of the personnel is widely scattered and even in concentrated districts we have only a few men on each lease and contact between them is limited. Hence, there is little opportunity for the safety engineer to maintain close supervision of a safety educational campaign in which he can study each man's actions and reactions in the routine performance of his job.

As a result comparatively few companies are attacking the field safety problem in an organized and sustained way. Following a severe accident, there is a flurry of investigations, some "sighs and head-shakings," a few rules or orders issued and perhaps some material strengthened here or a safety device installed there, and soon a state of complacency is reached and enjoyed until the next serious accident. Doubtless, this same condition was manifest in the factories, railroads and steel mills ten, fifteen or twenty years ago; but why should a large section of the petroleum industry continue dormant when even a casual survey of its records must shock it into a determination to get busy.

The picture is getting too black, and if you have read this far you are expecting some constructive thought among the "ruins." Observation of the work of operators who are studying and promoting safety in the oil fields discloses the fact that the best accident prevention records obtain among those groups where safe thinking and acting is instilled in the minds and hearts of workmen at the same time that safe tools and equipment is installed for their use.

THE standardization division of the American Petroleum Institute is making adequate provision for safety in its specifications for tools and equipment, and manufacturers are gradually providing practical guards and devices as a unit part of dangerous machinery. Added to that is the fact that only a small minority of oil field employes is exposed to machinery hazards. Therefore, when we analyze a broad experience in oil field accidents and find that the overwhelming majority of these fall under causes directly controllable by the employe, it must be apparent that safety education is sadly lacking, especially in comparison with mechanical guarding.

A few operators are holding more or less regular periodic group safety meetings to which employes are invited and where various phases of safety are discussed. Usually a safety inspection committee makes a report following a hasty round of the properties, in which they recommend that an isolated fly wheel, belt or gear be guarded; or that the kitchen floor of some house be painted; or that items of personal comfort be furnished; but rare indeed is the report which lists any unsafe practices. Far more accident sources would be disclosed if the safety inspection committee would occasionally forget the physical tools and equipment and spend their entire time watching men work; studying their movements and analyzing their individual or joint plans of procedure.

Group meetings form a good vehicle for safety endeavors; but they are not automotive unless the district supervisory force furnishes the motive power or sits in the driver's seat. Proper guidance of such meetings makes possible the building of a spirit of enthusiasm for safe practices and condemnation of the "take-a-chance" or thoughtless attitude.

THROUGH the medium of meetings friendly rivalry should be encouraged to the end that one district or group would voluntarily challenge another of similar size and activity to a safety contest with the loser paying for dinner or entertainment for the winner. Contests of this nature are being enthusiastically staged in the Mid-Continent and there is evidence of great interest in their progress and results. The foremen are watching their men more closely and holding small group meetings in an effort to anticipate trouble and "catch accidents before they happen." The men themselves are watching each other knowing that the experience of the group determines the gain or loss of the individual. A natural competitive spirit in every man should insure results, and as time goes on larger and larger groups should be induced to issue and accept challenges.

Another activity which is meeting with favor is the organization of joint community safety clubs by a number of companies operating in one district or around one town. Such clubs form an ideal clearing house for safety information, accident causes and prevention activities. They can be made self-sustaining providing the district superintendents actively sponsor them and guide the programs and discussions. Outside speakers can be secured occasionally and plenty of additional wholesome outlet for energy can be found in community health and safety drives.

Workmen are prone to minimize the inherent hazards of their occupation and constant repetition of an unsafe practice begets a dexterity which may become almost as safe as the correct method of performing the job. However, the new man coming on is "anxious to please" and naturally believes that imitation of the older employes is the key to a permanent job. Then during the time he is gaining dexterity he is continually subject to injury. Moreover the occasional accident occurring in a small group is soon forgotten and a sense of false security is engendered. Individuals boast of the fact that they have not suffered a personal injury for three or four years; but do not consider the cumulative experience of the entire personnel which on the same basis would show 25 to 33⅓ per cent injured every year.

IT is important then that each district be informed of the experience of the entire company and if possible the experience of other companies so that comparisons may be drawn in frequency and severity rates. The district superintendent (and through him the foremen and workmen) must be first convinced that the accident problem is serious; that it merits attention and that their record is subject to improvement. When every man is seized with a determination to prevent accidents they will be prevented.

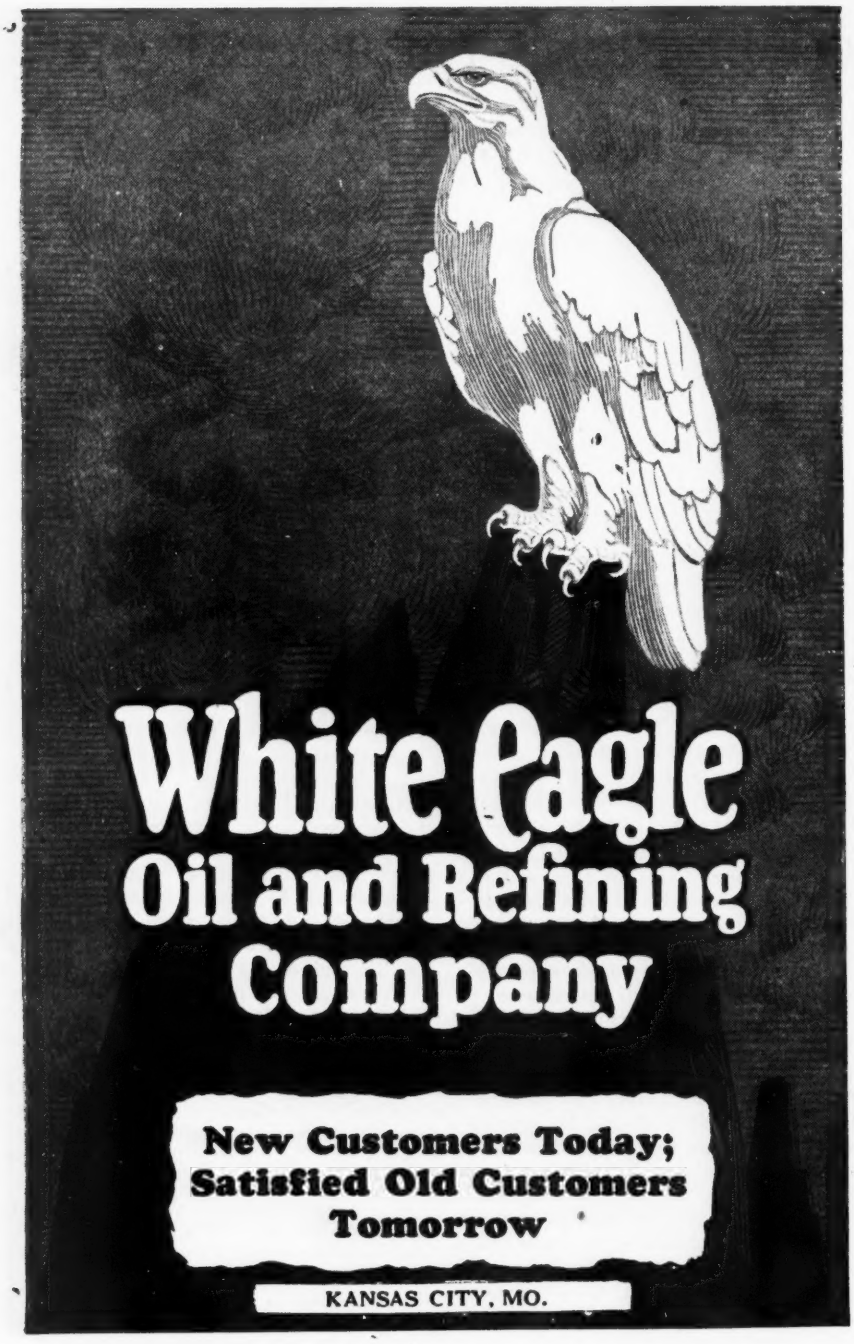
During the past year an interesting experiment was successfully tried by one

Others in Same Boat

ALTHOUGH the profundities of the oil business may mystify many, both in the business and outside it, not every one is as honest about admitting it as a man who recently had a hand in bringing in a new oil field.

George Grant, who is a director of the recently organized Saginaw Prospecting Co., Saginaw, Mich., takes the time to write National Petroleum News, thus:

"I helped to discover the Saginaw oil field, but I have not yet discovered many of the secrets of the oil business. All methods are new to me and all oil equipment as mysterious to me as an automobile is to an Eskimo."



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of the major companies in the Mid-Continent fields. This company had large holdings in the new Seminole field and started their development work early in the summer. Knowing the usual high frequency of injuries in a new field, an experienced district superintendent well schooled in safety, was placed in charge and a number of the same type of foremen, pushers and workmen were transferred to give him a nucleus around which to build his organization. This superintendent was a leader rather than a driver and he caused every new employe (who was hired only after physical and medical examination) to be taught the principal hazards of his work. He was informed that his company would not tolerate unsafe practices under any circumstances and that the penalty was immediate dismissal. Where possible he was placed with experienced men who took up the task of teaching him and watching over him. He was made to feel that his life and physical safety was important to his company and in return he gave better service to his company. It is true that a large number of the "floating" type of men were fired and the labor turnover was high at first. But at the last (December) report there had not been a single lost time accident in the field. The method may be subject to debate but certainly the results speak for themselves.

THE real problem then is not getting the fields ready for a year of safety; but getting safety education ready for the fields. Among other things we need:

1. Physical and medical examination of all new employes.
2. Periodical re-examination of all employes to keep them physically fit.
3. Selection and training of supervisory forces who can—
4. Properly train and place the new men.
5. Field safety organizations with
   a. group safety meetings
   b. safety inspection reports listing unsafe practices and conditions
   c. group no-accident contests
   d. social and entertainment features
6. Well planned safety poster campaign.
7. Inter-district and inter-company exchange of accident experience and safety information.
8. Provision for and maintenance of decent and safe working places, tools and equipment.
9. Inclusion of safety records in promotion and payroll plans.
10. First aid training for every employe.
11. Make every employe a safety engineer so that in the end—
12. A spirit of safety enthusiasm and a firm conviction that accidents can be prevented may pervade the entire organization.

TULSA.—A seven-unit natural gasoline plant is being built by C. G. Tibbins of Tulsa, on the 120-acre lease owned by him in section 31-15-9, six miles south of Bristow, Okla.

How Will Production of Oil From Coal Affect Petroleum Industry?

By Dr. Friedrich Bergius
Inventor of Bergin Process for Hydrogenation of Coal
A Lecture Delivered May 26, 1926, in Vienna
Translated by Paul Truesdell from Petroleum Zeitschrift Dec. 1, 1926 Issue

PART 3

THE Rheinau apparatus for converting coal into oil is not continuously operated because the yield from a single chamber is not enough to make such an installation practical. The minimum for an industrial installation is the assembly of four such chambers and this is the unit which will be standardized on in future construction.

The study of years gives sufficient assurance of the yields, the heat consumption and the durability of the apparatus and makes it possible already to judge how the process shapes up, even though, in a new process which is destined to become the basis of a new industry, many changes and improvements will probably be made in industrial application.

The basis for the evaluation of the practicability of the process is on one side the consumption of raw material and energy and on the other side the value of the resulting products. The raw material is coal and as the coal must be fed to the apparatus in powdered form, slack can be used. Brown coal and most grades of hard coal are suitable, only the very carboniferous hard coals, the anthracites, cannot be handled. Many grades of coal, for example, such as are rich in ashes, and fibrous coal are possible to use if they are prepared by washing or flotation.

The second raw material is hydrogen. Production of this is the pivot of the practibility of the process. If one had to depend for the coal liquefying process on the hydrogen-producing processes that are today used in the art, it would be very hard to make coal oil to compete with petroleum. The other great technical processes that use hydrogen, the ammonia synthesis, and the solidifying of fat, need pure hydrogen because they are catalytic processes. On the contrary the coal liquefying process is indifferent toward the quality or the impurities. Coal reacts with hydrogen even when it is mixed with other gases. It is sufficient if proper concentration of hydrogen is present in the gas. Because of this fact, it was possible to develop the new hydrogen producing process.

THE feature of this is that the methane and ethane—containing gases which are generated by the process itself, through a relatively simple heating process in the presence of steam, are split up and turned into hydrogen, so that the supply of hydrogen comes from the process itself.

As I mentioned, it is necessary in order to make the coal useable to add to it a certain quantity of thick oil and to make a paste. This oil is taken out of the product itself. The heavy portions of the product are further broken up by a second cycle through the apparatus and thereby brought to a more valuable form. In many cases it is advisable to use an outside heavy oil, for example hard coal tar residue, for making the paste. An accompanying drawing, Fig. 1, shows schematically the cycle of the process.

Besides the raw material, coal, energy also is needed. Part of the energy goes for heating, part for power, for the compression of hydrogen to the working pressure requires a considerable amount of power. Besides that, small quantities of iron oxide are used to combine with the sulfur portions and small amounts of chemicals, as in the petroleum industry, to treat the lubricating oils made in the process.

The process uses coal not only as the raw material for the reaction but also certain amounts for the production of heat and power. A diagram herewith, Fig. 2 shows what quantities are used for the latter purposes.

The products of the process are oil, the inorganic substances, the parts of the coal that are not converted and that vary between 1 and 15 per cent with different coals, about half of the nitrogen content of the coal in the form of ammonia, water of reaction and gas.

THE gas and the unconverted part of the coal furnish the heat for the process.

The oily parts of the reaction product, the composition of which varies with various coals, are subjected to distillation and refining methods which must be specially designed for this process, but which are very similar to those used in the petroleum industry, in which the

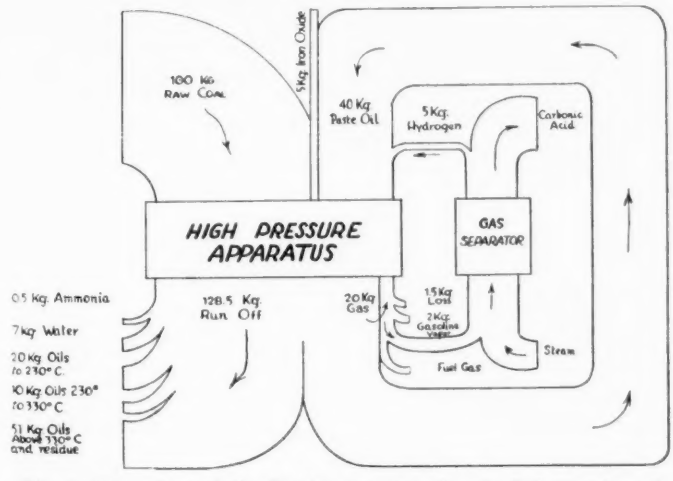

Fig. 1—Flow chart of the Bergius apparatus for the hydrogenation of coal. A kilogram is .4535 pounds

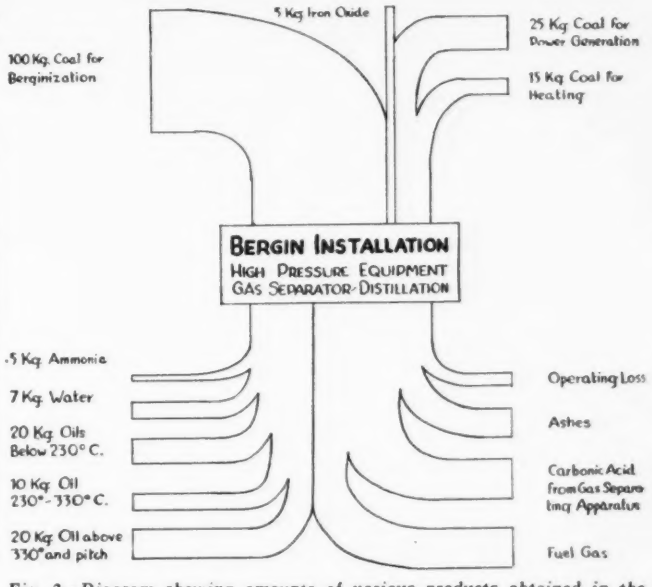

Fig. 2—Diagram showing amounts of various products obtained in the Bergin process and amount of loss. A kilogram is .4535 pounds

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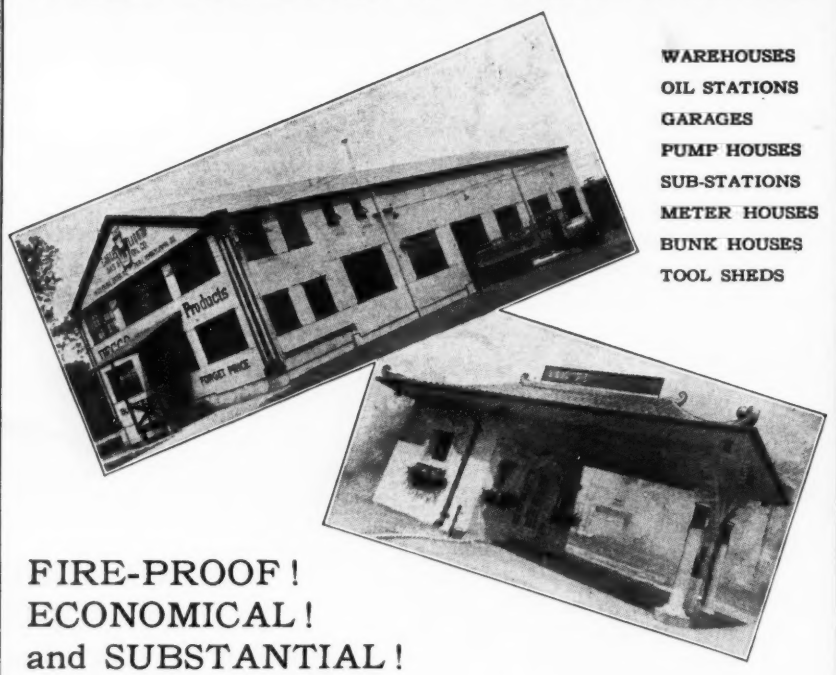

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Fig. 106

Screwed, Jenkins Standard Bronze Globe Valve

Fig. 325

Screwed, Jenkins Standard Iron Body Gate Valve

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various trade products are separated as shown in an accompanying sketch, Fig 2.

The material balance sheet is shown in another diagram. You will recognize from it that for 100 kilograms (a kilogram is .4535 pounds) of coal subjected to the process about 25 kilograms goes for power generation and 15 kilograms for heat generation, and that for this expenditure 50 kilograms of salable oil is made besides a certain quantity of ammonia.

In all of these estimates the average value, medium quality coal is considered. Naturally the figures would be subject to fluctuation momentarily according to the state of technical experience.

Great savings can be made both in power and heat generation as we have learned from all the great industrial processes, by continual development, and these of course, in a process of this sort in which the greatest expense is fuel in various forms, stand particularly in the foreground. By specially adapted apparatus, it has been established lately, a considerable amount of the power expense can be saved. This is an advance step that I have not included in my figures here.

You will naturally ask what will be the cost of oil produced by this apparently very complicated process and if it can compete with natural petroleum. I must give you a few data to enable you to judge.

THE operating cost figures which I will give you are the result of very careful and conservative estimates. They include the absolutely necessary reserves for such a process. Fundamentally, an installation for the production of about 50,000 tons of oil a year, its construction cost with the necessary reserves, comes to about 8,000,000 marks ($2,000,000). The amortization of all parts of the equipment, the building, gasometer, tank installation and so forth is fixed at 10 per cent.

The price of coal is, on the average, set at 10 marks ($2.40) a ton and it is considered that by far the greatest part of the quantity in question can be used in the form of coal dust, which can be bought in enormous quantities at less than half the price named in many districts in Germany.

The factor that makes up nearly half the operating cost is the power. The power cost is taken as 3 pfennigs (three quarters of a cent) per kilowatt hour, a price which in view of the fact that it will represent a uniform consumption of electric current, is set very high. I need not say to you here that modern power plants which have absolutely constant load can get current at a very low price.

I might emphasize in order to avoid misunderstanding that by the Bergin process it is entirely impossible to make a crude oil that can be further handled in some other place; the product consists perforce of separate fractions; the coal liquefying process is somewhat analogous to the production of crude oil, and the connection of the oil well with the refinery. If one speaks of the manu-

facturing cost of a ton of "product," under this designation crude oil is not to be understood, but the sum of the products which I show in the accompanying balance sheet of products, Fig. 3.

THE average price for a ton of salable refined oil consisting of gasoline, Diesel oil, wood preservative, lubricating oil, fuel oil, and ammonia can be reckoned on the basis given you as about 90 marks ($21.60).

The greatest influence that the cost of power exerts brings this manufacturing cost in the neighborhood of 78 marks ($18.72) or under. If one produces the current in his own plant with a modern installation, according to the figures given to me by a great electrical company, with improved power and heat economy, the possibility of which I have indicated, this cost will be still further reduced.

Of course the nearness of the coal to the plant would have a lot to do with the price of 10 marks a ton.

This delivered price of the raw material must be set against the value of the product. This depends upon the relative quantities of fractions of different values obtained and naturally depends in large measure on the changing conditions of the oil market.

The motor fuel, which represents the lightest fraction of Bergin oil, on account of its content of aromatic substances, is chemically a mixture of gasoline and benzol. If the gasoline fraction brings an average price of 300 marks ($72) a ton, the Diesel and impregnating oil (wood preservative) 100 marks ($24) a ton the lubricating ton 300 marks a ton, and the heaviest fractions which are suitable for fuel oil, 85 marks a ton, it appears, the proportion of the mixture of these products considered, that the product would have a price varying between 140 and 190 marks a ton, which is from 50 to 100 marks a ton higher than the manufacturing cost of the product. This, with the production of 50,000 tons a year, would give a comfortable surplus. Figured on the general business basis, the price of the oil could decline from 40 to 65 per cent before production would become impossible. That no such reduction in the price of oil is to be expected I have endeavored to make clear to you in the beginning.

YOU can understand that this kind of figures which I am giving you cannot be definitely stated until a representative large installation has realized them on its books and I must confess that I give them unwillingly. It is, however, absolutely unthinkable that these estimates, made as carefully as possible, cannot be established as within the limits of possibility of the manufacturing cost and the process itself.

There will naturally be circumstances and chemically reactive coals with which these given results cannot be reached. These will be important standing questions for the future oil-coal industry. That we shall be able to conquer such problems is indicated by the fact that such problems in other industries have been conquered.

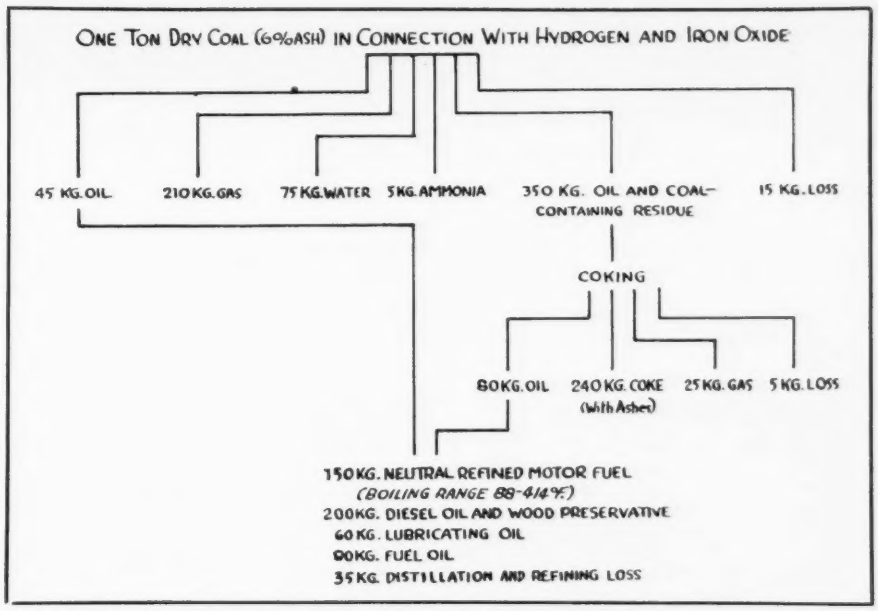
ONE TON DRY COAL (6% ASH) IN CONNECTION WITH HYDROGEN AND IRON OXIDE
45 KG. OIL
210 KG. GAS
75 KG. WATER
5 KG. AMMONIA
350 KG. OIL AND COAL-CONTAINING RESIDUE
15 KG. LOSS
COKING
60 KG. OIL
240 KG. COKE (with Ashes)
25 KG. GAS
5 KG. LOSS
150 KG. NEUTRAL REFINED MOTOR FUEL (BOILING RANGE 88-414°)
200 KG. DIESEL OIL AND WOOD PRESERVATIVE
60 KG. LUBRICATING OIL
90 KG. FUEL OIL
35 KG. DISTILLATION AND REFINING LOSS

Fig. 3—This is what Dr. Bergius calls his "material balance sheet." A kilogram is .4535 pounds

In the 15 years which I have worked on the coal problem and in the 13 years in which I have labored to bring coal hydrogenation from the stage of laboratory experiments gradually to an industrial basis, it has happened many times that I have had to announce advances of which my co-workers and I were convinced, before I could fully prove them. The fortunate technical development of the matter has showed we were right and has proved our assertions.

I had to learn first that the factor "time" in this kind of things is very irrational, that one must give his whole life to it exclusively and to the natural hindrances that held back development of the coal liquefaction process, many others were added, including war and inflation.

Public opinion is a factor not to be neglected in the development of such new technical processes because the good opinion of the world means finally material support, and the best support can sometimes be gained by whispering a word in the public's ear.

AT first it was objected that it was apparently fruitless to work with the pressures and temperatures necessary to liquefy coal and to work technically with solid, ash containing substances. This objection was thoroughly understandable and could only be answered after the erection of apparatus that made possible practical operation under these conditions. More dangerous and more serious was the fact that also from the scientific world the fundamental reaction, namely the addition of hydrogen to the decomposed coal was fought for years, probably because the repetition of our laboratory experiments required extreme care and years of experience. It was only after German and foreign research workers had brought themselves to my standpoint and had taken notice in publications of our results that the opposition of science was overcome and thereby the greatest hindrance to the further conduct of our work was removed.

Looking back I may in conclusion state that the technical part of the work, hard as it was, was much happier and more sympathetic than was the financial. The continual care for the proper conduct of a large staff of well trained and inventive associates was many times a severe test of the nerves. The willingness and the joy in their work of the men in whom the experiments were concentrated has been by far the most important help for the success of the work that I have here sketched in its outline.

WE are today chemically and technically at the goal and the conversion of coal into oil is no more a problem but has become a technical and industrial possibility. From this possibility, to make an important industrial factor is the work of the future. It must be understood clearly that very unusual industrial and organizing efforts must be made before coal oil can be made in a quantity to play a role in the world market.

And also it is neither possible nor desirable to endanger the market for natural crude oil, but the problem can be solved of making Europe free from dependence on the over-sea lands and at the same time saving hundreds of millions which Europeans are paying as tribute to foreigners for oil supply.

Right in the countries that have a lost war and the severe consequences of inflation behind them, it is easy to get a false picture of the importance of the oil question. We must understand clearly that these countries now stand at the beginning of a period of development that cannot be held back and that we will rapidly make up the handicap the other countries have on us in the development of the automobile. Then will the demand on foreign exchange for the purchase of gasoline that today is relatively small, increase in an important measure.

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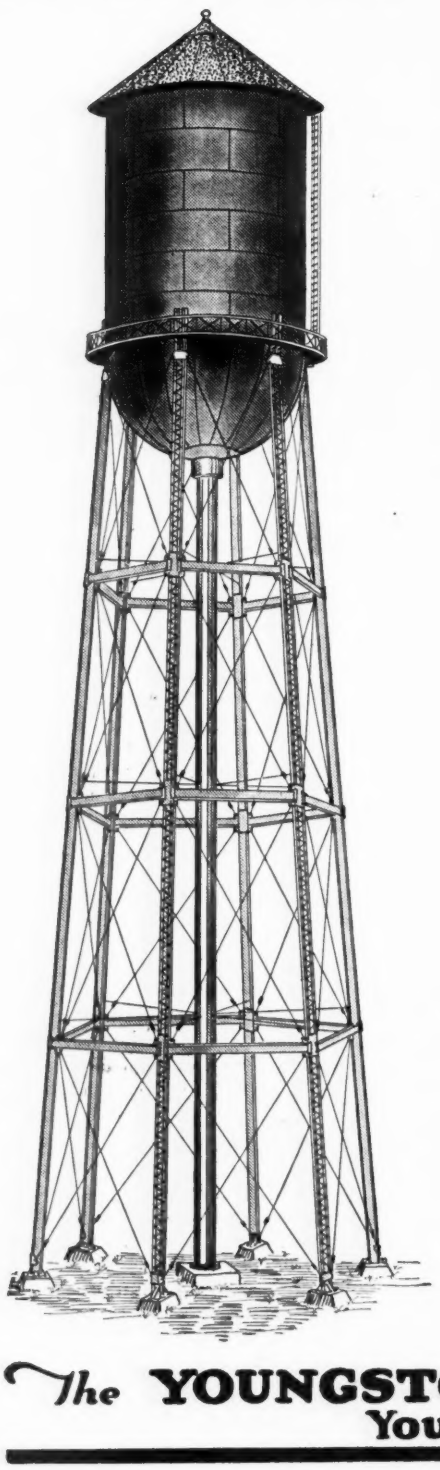

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Youngstown Ohio ·· U.S.A.

Tide Water Salesmen Plan for 1927

CHICAGO, Jan. 28.—Plans for 1927 and "shop talk" occupied the sixth annual sales convention of the central region of the Tide Water Oil Sales Corp. held Jan. 10, 11 and 12 at the Edgewater Beach Hotel, Chicago.

Besides members of the central region, executives from the eastern and western offices, together with 1926 prize-winning sales managers, supervisors and salesmen, attended. A number of middle western distributors were also represented, as well as the company's Canadian distributors. About 400 attended and everyone was stationed at the hotel.

All meetings were presided over by E. Waldo Emerson, manager of the central region which has its headquarters in Chicago.

The committee in charge of the convention was composed of E. Waldo Emerson, central manager, chairman; H. W. Brell, manager of the sales research department; R. H. Mozier, sales manager; Paul Sauer, advertising manager; C. C. Galloway, credit manager; Frank Corcoran, operating manager; O. C. Schuerger, central chief accountant; and C. W. Hart, central chief clerk.

The fifth annual regional conference of the Tide Water Oil Sales Corp. for the Pacific Coast was held Jan. 17, 18 and 19 at San Francisco. Axtell J. Byles, president of the Tide Water Oil Co. attended from New York. Meetings were under the supervision of F. M. Rowles, vice president and western regional director with headquarters at San Francisco. John L. McNab welcomed the visiting officials and representatives to San Francisco.

California Stocks Take Big Fall in 1926

LOS ANGELES, Jan. 28.—According to figures compiled by the San Francisco office of the American Petroleum Institute, California stocks of all petroleum stocks declined 11,704,133 barrels during 1926. Heavy crude and fuel oil stocks increased about 2,200,000 barrels, while light crude stocks decreased 13,360,000 barrels. Gasoline stocks gained 1,500,000 barrels.

Total crude oil production in California was 224,117,013 barrels in 1926, or a daily average of 614,019 barrels. This was a decrease of 6,030,329 barrels in production, from 1925 recovery.

During the year, 484 wells were abandoned, of which 284 were dry holes and 200 old producers.

During December, 1926, stocks of heavy crude and fuel oil were increased 100,925 barrels, while 610,922 barrels of light crude was added to storage. Gasoline stocks increased 463,858 barrels. There was a total net increase in stocks of all products during December of 708,302 barrels.

Stop More—Sell More "Gas" Buyers

That's what a Flexlume Electric Day-and-Night Sign will do for you. No matter how fast they drive, motorists can read "Gas" on a Flexlume from far up and down the street, *both* day and night.

There's an unusual boldness and brilliance about Flexlume that make it stand out in the sign crowd—raised white glass letters by day and solid, glowing letters of light by night.

Let us send you photoprints showing how Flexlume is stopping and selling them for other service stations, and an artist's sketch of a sign for your particular business—without obligation.

We also build exposed lamp and other types of electric signs for those who prefer or require them.

FLEXLUME CORPORATION
1120 Military Road Buffalo, N. Y.

Flexlume Offices in All Principal Cities

Factories also at Detroit, Los Angeles, FLEXLUME CORPORATION Oakland, Calif. and Toronto, Canada

SEAMLESS! — No Joints — No Welds
No Bolts — No Rivets — LEAKLESS!

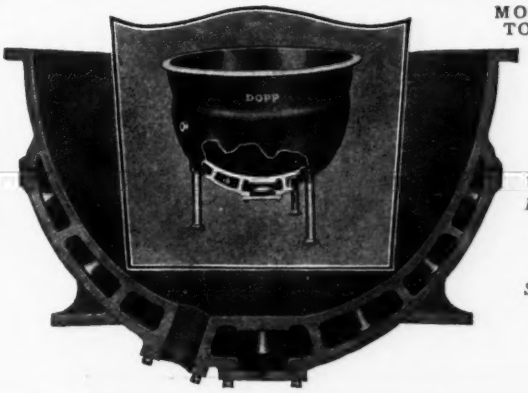
DOPP Jacketed Kettles and Mixers are tight under pressure—not only when first installed—but after many years use. Many units are still in service after 30 and 35 years. Oils and greases may be alternately heated and cooled in the same kettle!

DOPP Mixers and Agitators are noted for their rapid and thorough mixing, and low up-keep cost. Grease makers and oil blenders prefer them because they improve their product and at the same time lower their costs.

You should know all about the DOPP line. Ask for your copy of Catalog No. 7—and then— ADOPT THE DOPP

SOWERS MANUFACTURING CO., 1305 Niagara St., Buffalo, N. Y.

NEW YORK BOSTON MONTREAL TORONTO

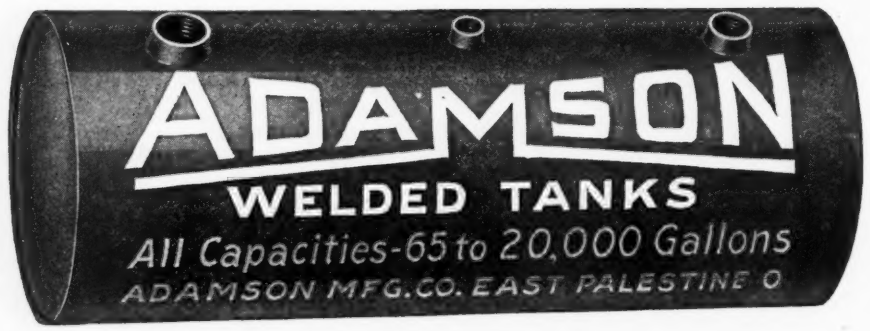


Kettles:
1-125 gallons with pipe legs.
135-1000 gals. with lugs.

Mixers:
16 Styles

Vacuum and Pressure Pans:
10-2000 gals.

Soap Crutchers:
1000-4500 lbs.



GULF Refining Company

General Sales Offices
PITTSBURGH, PA.
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New York, Houston, Atlanta, Boston, New Orleans, Tampa, Philadelphia

REFINERS OF OKLAHOMA TEXAS AND LOUISIANA

PETROLEUM

REFINED OIL
GASOLINE
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GAS OILS
PARAFFINE WAX
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Fuel Oil--Lubricating Oils

CYLINDER ENGINE
CORDAGE

RED AND PALE PARAFFINE OILS

U. S. and Canada Set Auto Output Record

CLEVELAND, Jan. 31.—Automobile production in the United States and Canada in 1926 totaled 4,454,541 passenger cars and trucks, according to the U. S. Department of Commerce. This is a new record. Revisions in the November and December totals are to be made but only slight variance from the foregoing figures is probable. The 1925 total production in the two countries was 4,336,271 passenger cars and trucks. Early estimate of the 1926 output was 4,480,000 vehicles.

Production in this country and Canada in December totaled only 175,415 vehicles. Reports came from 54 passenger car manufacturers and 127 truck manufacturers, with 18 of the reporting companies making both classes of vehicles. The passenger car figures include taxicabs and the truck figures ambulances, funeral cars, fire apparatus, street sweepers and busses.

The 1926 monthly output statistics follow:

	Passenger Cars	Trucks	Total
January ...	284,703	272,922	11,781
February ..	334,524	319,763	14,761
March	399,105	381,116	17,989
April	401,836	383,907	17,929
May	394,569	373,140	21,429
June	*358,388	*339,570	18,818
July	*329,956	*317,003	12,953
August	*393,056	*380,274	12,782
September ..	*363,547	*350,923	12,624
October	*300,160	*289,565	10,595
November .	226,278	*219,504	6,774
December .	143,413	137,361	6,052
Total ..	3,929,535	3,765,048	164,487
January ...	*33,517	*29,819	3,698
February ...	*41,784	*37,707	4,077
March	*49,386	*45,001	4,385
April	*54,135	*50,562	3,573
May	*51,568	*48,063	3,505
June	*47,265	*44,332	2,933
July	*41,873	*39,618	2,255
August	*47,836	*45,333	2,503
September ..	*51,257	*46,386	4,871
October	*46,973	*42,898	4,075
November .	39,410	*36,356	3,054
December .	30,002	28,302	1,700
Total ..	535,006	494,377	40,629

* Revised.

LOS ANGELES,—According to announcement recently made in San Francisco, D. A. Folsom, formerly assistant to the president of the General Petroleum Corp., has joined the staff of E. A. Pierce & Co., (formerly A. A. Housman-Gwathmey & Co.), large brokerage house. Mr. Folsom will remain in San Francisco, and will head the oil department.

LOS ANGELES,—E. A. Doran, who came to Los Angeles in 1890 and became interested in the old city oil field, died at his home, here early in January. Mr. Doran was a pioneer in oil circles in Southern California and was well known.

REGAN, N. D.—E. E. Fredeen Oil Development Association has completed arrangements for the drilling of three wells between Regan and Robinson, N. D. and operations will begin in the early spring, according to A. L. Garnes.

Many Factors Affect Efficiency of Cooling Towers for Gasoline Plants

By F. A. E. Lowell
Pan American Petroleum Co.

Read Before Meeting of California Natural Gasoline Association, Los Angeles, Jan. 19

WE have all seen a great many cooling towers, and as many different combinations of heat transfer apparatus (both closed coolers and atmospheric coils). The cooling equipment theories and designs are many and varied.

There is, in all probability, just one perfect cooling system for gasoline plants, and also, in all probability, that perfect cooling system has not yet been devised.

While the theory of cooling may appear to be very simple, still, upon investigation we find that it is not such an easy problem to produce that 100 per cent perfect cooling system.

The perfect cooling system is the one that secures the best results with the least investment; in other words, the original capital cost, maintenance cost and operation cost, when all are considered together, must be a medium. Also, the final salvage value of the equipment involved must be considered as it is finally a credit to the investment. The term "best cooling" is rather broad —it may indicate the cooling of a fluid to a desired low temperature in one case, and simply the dissipating of the maximum number of heat units without special regard for the final temperature in another case.

OBVIOUSLY, there are so many items to be considered in the design of a cooling system, and so few reliable figures to base our conclusions on, that plant cooling design has really been more or less subject to personal whims rather than based on sound accurate figures. It is to be hoped that we may all keep a better check of our results in the future so that we may exchange reliable data through this organization and thereby be enabled to more nearly approach the attainment of that perfect cooling system.

The original construction cost, of course, is made up of material and labor, and the expenditure can be controlled as desired. Once the construction is completed, the capital cost is also completed.

The maintenance cost depends upon the quality of material and labor used in the original construction, and is also dependent upon operation and design—and this item enduring over the life of the plant often amounts to several times the original capital cost. The replacement of pipe coils, the renewal of tubes in closed coolers due to scaling, corrosion, etc., are some of the items to be considered under maintenance.

Operation cost is another item of monetary importance, and its total over a period of years often exceeds the original capital cost. The chipping off of scale, drilling out of scale, cleaning out distributing troughs of deck type towers, or the cleaning out of spray nozzles, the fluid pumping costs, loss of water by windage, and the loss of production due to inefficient equipment, in total, is an operating cost item of very considerable importance.

And finally, when we are ready to salvage our equipment, is it of a type and construction that will easily lend itself to being moved elsewhere? Or, is it cheaper to let it stay where it is? The salvage value is important, too.

Whenever the cooling is equally efficient in several cooling systems, but in one of the systems the total of the above construction cost, maintenance cost and operation cost, less the salvage value, amounts to the least investment value, then we have our best cooling system.

IT seems to the writer that cooling as connected with gasoline plant practice has two distinct and definite applications.

First: One account of the nature of our absorption process we are especially interested in cooling our absorption oil, gas and gasoline vapor to the lowest possible economical temperature.

Second: We have a quantity of heat in our gas engine jacket water which we wish to dissipate, not caring specially what our final jacket water temperature is so long as it is within reasonable limits.

It has been observed in various atmospheric towers that fluids have been cooled to a low temperature in the first pass through the tower but have been heated during successive passes because of the proximity of other hot coils, or hot air, vapor or water blowing over the final passes, so from this angle the design of an efficient atmospheric tower depends largely upon the existing cooling water temperatures upon the heat transfer surfaces.

It has been noted in cooling fluids from 200° or 150°F. to 70°F. that about 75 per cent of the heat is removed in the first quarter of the pass, but the temperature of the water falling on the remaining three quarters of the pass is high (being influenced largely by the high temperature of the spray water leaving the first quarter pass).

A suggestion that is worth consideration is to create two cooling towers, each with an isolated spray and pumping system. The first tower would cool all the engine jacket water and also contain the first quarter pass of each of the other fluids (oil, gas and gasoline vapor).

The spray water circulation rate would be high in this tower, also, the spray water temperature would be fairly warm, still we would have a sufficient "temperature potential" (so to speak) to make an effective heat transfer possible.

THE second tower would contain the final three quarters of the pass of the oil, gas and gasoline vapor. The spray circulation rate in this tower will be low and the temperature of the water falling on these coils will be a minimum because it will not be affected by the hot water dripping off the hot coils in the other tower, nor will the hot coils be close enough to interfere with the obtaining of a final low temperature.

To those theoretically inclined, the advantage of this arrangement can be shown in the heat transfer coefficient formula

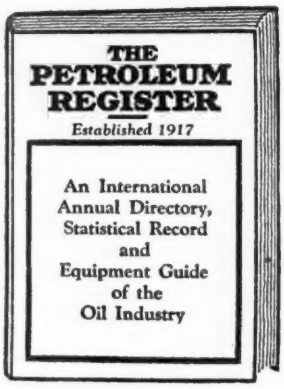
$$Ko\frac{BTU}{Hour\ Xsq.ft.X°MTD}$$

If we are given a cooling coil of a certain diameter, or a specified metal, and with a specified velocity of a certain kind of fluid within that coil, and if the coil is installed in an atmospheric cooling tower, then we have absolutely determined Ko; it is always a constant and is always equal to this same value when it is under the same set of conditions.

If we transpose the above formula so that it looks like this:

$$\frac{BTU}{hr.} = KoXsq.Ft.X\ MTD$$

The BTU per hr. (or the total heat per hour) to be dissipated is determined by the initial and final fluid temperatures, so that both the quantities BTU per hr.) and (Ko) are now constant values. The product of sq. ft. and M. T. D. must now be a constant



The Petroleum Register 1926

is now off the press, with hundreds of new listings. It combines in one book the following:

A comprehensive directory of equipment used in the oil business, with names and addresses of manufacturers and dealers—

Refiners — officers, capital stock, properties, summary of latest financial report—

Producers—thousands of companies engaged in producing and exploring for oil—

Marketers and jobbers—compounders, grease and natural gasoline manufacturers, pipe line companies, drilling contractors and foreign companies.

Two new features — an alphabetical directory of executives of leading oil companies and their positions. Reproductions of lease forms used by producers and prospectors.

Also Statistical Section; Refinery and Natural Gasoline Plants; Trade names of leading brands of petroleum products; Secretaries and headquarters of oil associations.

National Petroleum News
805 Caxton Bldg.
Cleveland, Ohio

Here is my check for $10 for the June 1926

PETROLEUM
REGISTER

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value. We can, however, vary the sq. ft. value just as much as we can vary the M. T. D. value in the opposite direction so that their product always gives a constant. From this it follows that if we can by any manner increase the M.T.D. then we can decrease the sq. ft. of heat transfer surface. Whenever we can decrease the heat transfer surface, still obtaining the desired final low temperature result, we are saving installation cost on heat transfer surface.

IT seems to the writer that we have an opportunity to decrease the plant cooling equipment cost by making the M.T.D. larger. This will effect a saving in heat transfer surface and tower structure and will consequently decrease the cost per gallon. This saving can be accomplished by the development of a design using two cooling towers.

The advantages of a dual tower system are numerous; perhaps one of the most important is that we can use two different spray rates. It would be advantageous to maintain a heavy spray per sq. ft. per minute. This would amount to flooding the coils and would tend to maintain a larger M.T.D. which is desirable for efficient operation. Also, the greater water concentration on the hot coils would greatly retard the deposit of scale and tend to prevent corrosion both of which are now so troublesome. A greater spray circulation than 4 lbs. per sq. ft. per minute would be useless.

The final tower could well make use of a spray rate of about 1 lb. per sq. ft. per minute. This will permit cooling by evaporation on the coil surface itself; it will also produce a temperature in the spray striking the coils much nearer to the wet bulb than if the circulation rate were greater. In other words, the cooling efficiency of the spray at lower rates of circulation is more efficient, but more actual heat units are liberated with the heavier spray concentrations.

A FEW words might be said about cooling coils. We have recently tested some coils in an atmospheric tower which were built of small diameter admiralty metal tubing. The coefficient of heat transfer was remarkably high due to the thin tube wall made possible by the small diameter; also, the admiralty metal is a better heat conductor than wrought iron.

The admiralty metal should also be more successful in withstanding corrosion than wrought iron pipe. The coefficient of heat transfer existing in any particular atmospheric cooling coil varies as the velocity of the fluid within that coil, more than with any other one thing. The length of the pass must be designed to give the velocity of fluid desired. With any given tube surface and a given quantity of fluid, temperature will be the lowest whenever the length of the pass is greatest, the velocity greatest, and consequently the Ko is greatest.

In all atmospheric cooling coils, the coils should be arranged on one or two levels as nearly as possible and in such a way that all of the spray water has to fall on some metal coil surface, permitting none of the spray to fall through to the basin without striking some part of the coil surface.

One thing to be borne in mind is that cooling to within a certain number of degrees of wet bulb is not a fair standard of comparison unless the humidity is the same. For instance, it may be possible to cool water within 2° of wet bulb in Los Angeles climate with a wet bulb of 67° and a dry bulb of 80°, but it is a much different thing to cool water within 2° of the wet bulb in a climate like that of Taft during summer when the wet bulb is 70° and the dry bulb is 100°.

The choice of a cooling tower structure is a difficult problem. A spray tower with a single spraying will probably never cool spray more than through a 15° range. A deck type tower will, however, cool water through an indefinite range depending on the number of decks, 30° not being at all uncommon. The tower structure is more a matter of cost than anything else—they are both satisfactory so far as cooling results go.

THE natural draft tower seems to be out of place so far as gasoline plant practice is concerned. It is of vital importance to keep the tower open to the air passage through it. It is not economical to keep the hot air in the tower after it has picked up heat from the cooling water. It is not conducive to good cooling to have the spray drifting down through the hot rising air. The loss of spray water is not so serious as it might seem. It is true that during a few hours of each year we lose quite a bit of water through the louvres of an open tower due to high winds blowing the spray out of the tower, but is it wise to design our towers for this small minority of time and sacrifice efficiency during the great majority of time? The loss of water at two of our plants averages between 1 per cent and 2 per cent of our total circulation. The rate of circulation is low at these two plants, and if the water circulation rate were higher (as it should be) then the per cent loss would be even less than the above figures.

If all of the water added to these two plants (to make up for the water lost) were evaporated in the cooling towers, we could thereby account for 70 per cent to 90 per cent of the total heat actually dissipated from the tower; in other words, the water make-up (or the water loss) is not excessive, and the water loss accounts for only a part of the heat actually dissipated.

These figures can be safely used to show that the loss of water by windage does not exceed one-half per cent to 1

per cent of the actual circulation. The remainder of the loss is a result of water evaporation necessary to do cooling work and is unavoidable.

In closing, there is just one point that I would like to emphasize. It is the opportunity that we have to secure better cooling with less cost by the adoption of a design which will give us a greater mean temperature difference. This is a point that has been somewhat neglected but which is exceedingly important whenever the cooling coils are placed directly in an atmospheric cooling tower.

HyVis Oils and Greases To Sell Nation-Wide

CLEVELAND, Jan. 29

Motorists over the country are to have a chance to become familiar with the HyVis trademark—the caricature of a man made out of the letters o, i, and l.

The Fred G. Clark Co., Cleveland, will begin soon a national advertising program and a plan of national marketing, through distributors exclusively, of a complete line of HyVis oils and greases for automotive lubrication. It is to use the Saturday Evening Post, beginning March 19 and also billboard space.

The company has been putting HyVis motor oil on the market for some years, linking the trademark with the dealer's name in its advertising. This oil is made entirely at the company's own plant, the Conewango Refining Co. at Warren, Pa., and is a Pennsylvania grade crude lubricant.

According to Fred G. Clark, Jr., president, the company is taking on H. M. Gibb, an experienced grease man who is widely known in the jobbing trade and is putting in a grease works at its Conewango plant. Mr. Gibb is the originator of what is known as the pressure type of grease. He will manufacture and supervise the sale of the company's complete grease line, which will also use the HyVis trademark.

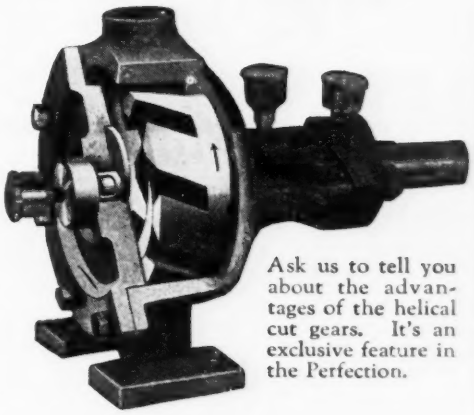
HyVis motor oils have been approved by the leading motor car manufacturers, according to Mr. Clark.

CRAWFORDSVILLE, IND.—The recently completed service station of G. W. Deer & Son here is equipped with three pumps, and greasing plant which is equipped with air grease gun, flusher, and other modern equipment, according to Paul Deer, secretary and treasurer.

EVANSTON, ILL.—The annual stockholders' meeting of the Johnson Oil Refining Co. was scheduled to be held on Jan. 25 at the company's general offices on South LaSalle St., Chicago, reports I. H. Johnson, secretary.

Bigger, Better Pumps Make Profits Bigger

Why spend half a day in unloading a tank car when at a moderate cost you can get a Perfection Pump that will do it in an hour and a half?

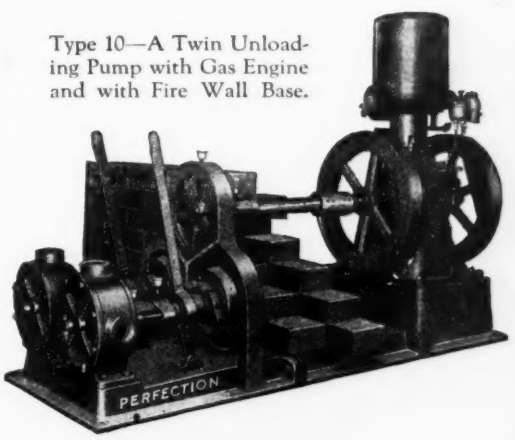


Ask us to tell you about the advantages of the helical cut gears. It's an exclusive feature in the Perfection.

Even though you may be able to get along with your old unloading pump, a larger pump will save enough time to pay for itself.

The Perfection Rotary Pump has some special features that are worth looking into.

Write for catalog and prices.



Type 10—A Twin Unloading Pump with Gas Engine and with Fire Wall Base.

Perfection Manufacturing Company

2194 East Hennepin Ave. **Minneapolis, Minnesota**

Oil And Grease Formulas

200 formulas, modern in every particular, have been prepared in a simple, non-technical style by Forrest A. Hoff.

They are of value to the refiner, jobber, compounder, broker and lubricating engineer.

Just attach your check to this ad and return it to us now. $15 is the reasonable cost of all this valuable information. Synopsis sent upon request.

National Petroleum News

830 Caxton Building **Cleveland, Ohio**

Our Industry—A Page of Facts and Observations

National Petroleum News

By Paul Wagner

JAMES M. DOUGLAS, until recently Rocky Mountain geologist of the Union Oil Co. of California, with headquarters at Fort Collins, Colo., has been appointed Venezuelan manager of the Union National Petroleum Co. The Union National will begin operations soon on approximately 900,000 acres of potential oil properties originally acquired by Pantepec Petroleum Co. of Venezuela. Pantepec and Union of California recently formed the new company to operate under a development contract. Douglas, a native of Bradley, Monterey county, Cal., worked in the Santa Maria and Sunset fields before entering college. Graduated in geology at the University of California, he worked out of Casper in the Wyoming territory until 1917.

* * *

HOMER McDUFF, who has been stationed at Lake Charles, La., as field superintendent in charge of Sweet Lake development of the Pure Oil Co., is now at Mexia, Texas, southwestern operating headquarters. His new title is that of general superintendent under B. S. SoRelle, Texas division manager. McDuff succeeded T. W. Jones, who resigned from the Pure Oil Dec. 1, last. Howard Johnson is now filling the job at Lake Charles which was made vacant by McDuff's transfer.

Under McDuff's field administration the deepest producing well in the Gulf Coastal region was completed at 5897 feet in the center of Sweet Lake, Calcasieu parish. The well, known as No. 3, is now making about 135 barrels of oil and upwards of 2,000,000 cubic feet of gas daily. An earlier Sweet Lake well of Pure Oil blew out and the hole lost when a volume of about 75,000,000 cubic feet of gas was encountered. Other wells are now drilling. The No. 3 Sweet Lake, which hung up several records for Gulf Coastal territory, is the deepest producing well in the region by 421 feet; 5864 feet of 6⅝-inch casing was set in the hole, the longest single string (by 10 feet) ever used in this part of the oil country.

* * *

H. L. SNYDER of Pittsburgh, general superintendent of the Pittsburgh Oil Development Co., recently made an inspection trip covering West Texas and New Mexico territory. Although the company is only about a year old it is drilling three tests in wildcat areas of west Texas, one in New Mexico, one in Louisiana and another in Alabama. T. R. Cowell, Sr., is president.

STEVE S. OWEN

STEVE S. OWEN, Tulsa operator and wildcatter-de-luxe, continues to drill for new fields in the west Texas region southwest of Colorado City. As operating head of the old Underwriters Producing & Refining Co., he discovered the Westbrook field, in Mitchell county, in 1921. Later, the Underwriters' properties were sold to the California Co., Texas and Rocky mountain subsidiary of the Standard Oil Co. of California, for a sum approximating three-quarters of a million.

The partnership of Owen & Sloan, in which Steve is a principal, brought in the Chalk pool of southeastern Howard county, last June, with a discovery well good for about 200 barrels initial at 1484 feet. Holdings of the partnership in the Chalk area were afterwards sold to the Magnolia Petroleum Co., for a cash and oil consideration reported as high as $400,000. Owen and his partner are again drilling wildcat wells in the Mitchell-Howard county territory, trying to pick up other rich spots.

* * *

GEORGE W. BILBO occupies a unique position in the petroleum industry of Oklahoma. After interesting a group of friends in Iowa a number of years ago, Bilbo formed the United 8 Oil & Gas Co. It began drilling shallow wells at the 600 foot level in the Madill, Okla., field, and now nine have been completed. The last well to be finished was the No. 1 I. C. Brown, in 24-5S-5E, which made about 15 barrels initial production at 604 feet. Other wells giving up settled production make smaller yields. Bilbo and his associates, however, own all the production in the field, and are making plans to drill three additional tests. Profits are not large, because the wells are small and the scope of operations circumscribed, but Bilbo is credited with mailing dividend checks regularly and sending his stockholders a detailed operating statement every month.

* * *

A MONUMENT several feet high, in an open space surrounded by pine trees at Sour Lake, marks the site of one of the three original producing wells of The Texas Co. The well has long since been abandoned, and the casing pulled, but as a matter of sentiment its site has been appropriately marked by its owners.

In the early part of 1902 an option was obtained by the company on a tract of land consisting of 812 acres on which the famous Sour Springs at Sour Lake were located. The price agreed on was $1,000,000, which in those days was generally considered beyond all limit of reasoning. But let us tell the story in the words of George E. Anderson, field employee of The Texas Co., at Sour Lake, in the January issue of "Bit and Tongs," a company publication of the producing and pipeline departments:

"Two test wells were successfully completed and came in producers. Before closing the deal (option) the third well was decided on in a different part of the field. Drilling operations on No. 3, then known as Sour Lake well No. 3 or Cullinan No. 1, started January 2, 1903, under Sharp Brothers, contractors, Bud Coyle, driller. Great secrecy was the keynote of this drilling and nothing was known about the progress to the outside world until the latter part of February. At the depth of 1008 feet the well unexpectedly blew in with an estimated flow of 8000 barrels, clean pipeline oil. Shortly after that the deal was closed and the land became the property of The Texas Co.

"The well remained shut in from its state of completion until early in June, 1903, when her gate was again opened and she started off with an initial flow of 2000 barrels—24.5 gravity—pipeline oil. A steam gauge placed on her flow line indicated pressure of 80 pounds. As this flow gradually diminished, it was decided to place her on the beam, but for some unknown reason she failed to produce as a pumper. After several unsuccessful attempts to overcome this difficulty, she was finally abandoned in June 1905, and the casing pulled in July."

Anderson comments further in these words:

"Had No. 3 proved herself non-productive it probably would have ended The Texas Co.'s enterprise as producers, and perhaps her finish in the oil business."

Therein lies the history of the monument at Sour Lake which keeps fresh in the memory of The Texas Co. what the drilling of its No. 3 fee well meant to a far flung organization now recognized as one of the great powers in a great industry.

Dont Fail To See The Latest

Vogt *DROP FORGED STEEL* Valves

With INTEGRAL FORGED FLANGES

AT THE POWER SHOW FEB. 15-19, COLISEUM, CHICAGO

HENRY VOGT MACHINE CO.
INCORPORATED
LOUISVILLE, KY.

New York Chicago Philadelphia Cleveland Dallas

Manufacturers of: OIL REFINERY EQUIPMENT, DROP FORGED STEEL VALVES AND FITTINGS, WATER TUBE AND HORIZONTAL RETURN TUBULAR BOILERS, ICE MAKING AND REFRIGERATING MACHINERY.

Visiting Around the Refineries

By Paul Truesdell

National Petroleum News

New House Organ Describes Refinery

H. HEWETSON, manager of the manufacturing department of the Beacon Oil Co., Boston, writes a description of the company's refinery at Everett, Mass., in the second issue of The Colonial Beacon, published by the company for its employes and friends. Pointing out that refinery operation is becoming more and more a matter of precision control rather than depending on the uncertain human element. Mr. Hewetson describes the plants facilities, which include Ellis (Tube and Tank) cracking stills with a capacity of 13,000 barrels a day. The crude capacity of the plant is about 14,000 to 18,000 barrels a day. The cracking capacity has recently been increased by the installation of new units, Mr. Hewetson says.

The company owns three tank steamers and has underground concrete reservoirs at the refinery with a capacity of more than 1,000,000 barrels for crude storage. Mr. Hewetson says the company makes a gasoline of high anti-knock value in its cracking stills and it was, according to the Beacon, the first company to introduce Ethyl gas in New England. The plant equipment includes the latest type of fractionating towers and other equipment.

The refinery produces gasoline, gas oil, several grades of domestic heating oils, road oil, flux, asphalt, all grades of motor oil and industrial lubricating oils and fuel oils.

The Colonial Beacon, which supplants the earlier magazine of the company, The Beacon Flash, is an attractive magazine of 20 pages.

Opposes Fuel Oil Specifications

BERRY V. STOLL of the Stoll Oil Refining Co., Louisville, goes on record in a letter, against establishing complicated specifications for fuel oil, which has been proposed. He says: "I feel that close technical testing of fuel oil is just about as modern and up-to-date as the old inspection law on kerosene. Refineries should be permitted to sell their byproducts as fuel oil and not be restricted to a lot of tests that might cause goods to be rejected."

Mr. Stoll agrees that specifications prescribing freedom from moisture, percentage of sulfur permissible and perhaps percentage of sediment would be all right but he says: "It is to the best interests of all that only waste products be put into fuel oil. Refiners should not be required to throw valuable products into the fuel oil when waste products will serve, in order to meet specifications."

We think Mr. Stoll is right, and that any comprehensive specifications for fuel oil would be a backward step.

Gulf Refining Co.'s New Philadelphia Plant

CHARLES B. BUERGER, general manager of the manufacturing department of the Gulf Refining Co., states that the company is building a 20,000-barrel topping plant at its Girard Point terminal, located at the junction of the Delaware and Schuylkill rivers, below the bridges.

The refinery will run on Venezuelan crude, making gasoline, furnace oil, gas oil and fuel oil. It will probably be ready for service next fall, Mr. Buerger says. This will make the Gulf's fourth refinery.

Maybe We Should Have Said the Second

C. J. HOLLAND, assistant to the president of the American Refining Co., Wichita Falls, Tex., writes in to protest against a statement made in my story of the trial of the infringement suit, Dubbs vs. Skelly, which was published in the Dec. 12 issue.

I said that the Dubbs-Skelly suit was the first in which infringement was the clean-cut issue to come to a speedy trial. Mr. Holland says that the trial of the suit brought by the Gasoline Products Co. against his company, charging infringement of the Cross patents was the first to come to trial. This suit was tried last April.

My statement was based on the impression that the issues in the Cross-American suit were somewhat different than those in Dubbs-Skelly, but as Mr. Holland explains the matter, the suit in which he was interested was undoubtedly the first such suit to be tried.

More From a German on Refinery Corrosion

DR. H. BURSTIN, Drohobycz, Galicia, has written a letter to Die Petroleum Zeitschrift commenting on the article on corrosion in refineries by Dr. H. Schmidt, which was published in Oct. 20 issue of that German paper. Dr. Schmidt's article was published in translation in National Petroleum News Dec. 8. This article of Dr. Schmidt's was challenged by R. E. Wilson and W. H. Bahlke of the Standard of Indiana in a letter pubished on page 62 of the Dec. 22 issue of National Petroleum News.

Dr. Burstin adds something to the discussion of corrosion with the statement that analysis of the water from some of the wells in the Boryslaw (Poland) field, shows free hydrochloric acid where no magnesium chloride is present. Dr. Burstin attributes this condition to breaking down of the sodium chloride, which he says is always present in crude oil, by the action of the naphthenic acids in solution in the crude. This reaction goes on to some extent in the ground, he says, but proceeds much more rapidly in the high temperature of the stills.

Increasing Production of Anti-Knock Gasoline

THE SIMMS OIL CO., of Dallas, is building a refinery at Smackover, Ark., to increase its production of anti-knock gasoline. The plant, which is being built by the M. W. Kellogg Co., New York, will have a crude capacity of about 4000 barrels a day. Two Cross units are being installed that will give about 2000 barrels a day cracking capacity. The Simms company took over the plant of the Clayton Oil & Refining Co. at Dallas and for some time has been putting out a fuel of high anti-knock value from that refinery.

To Improve Okmulgee Refinery

DAILY newspaper reports are that the Independent Oil & Gas Co. plans improvements and extensions to its Okmulgee plant that will practically double its capacity and will increase its operating efficiency. An estimate of $750,000 is given as the cost of the new work. The company not long ago put in considerable improvements at the plant including a contact filtering system for lubricating oils.

New Equipment for Plant Improvement

Personal Notes of the Manufacturers

National Petroleum News

General Electric Co., Schenectady, N. Y., has two bulletins off the press, one devoted to its small, multi-stage centrifugal air compressors and the other to dynamometers.

Chief features of the small multi-stage compressor are the gear type oil pump which is geared to the motor shaft providing forced lubrication for the three bearings, efficiency and constant pressure, clean air and low installation and maintenance costs, according to the company. Construction details, operating characteristics and ratings are given in the bulletin.

The dynamometers have been built in many sizes for a number of applications including the testing of internal combustion engines, fuel distribution and dopes, dilution of crank case oil, lubrication, etc. The dynamometer operates either as a driving element or absorption element and in either direction of rotation. Control is discussed and capacities and illustrations are given.

* * *

The Economy Engineering Co., Chicago, manufacturer of portable lifters, stackers and storage racks, has placed on the market a new barrel drain rack for use at filling stations and garages where oil is drawn directly from barrels.

The rack is built of structural steel and is equipped with a winch and a cable for drawing the barrels on to the rack, thus making it possible for one man to handle several drums quickly, and eliminating the use of any other mechanism. The units which make up the rack can be furnished in any length.

* * *

A. Y. McDonald Mfg. Co., Dubuque, Ia., has placed on the market an oil service set and the McDonald-Bean car washer. The washer works with water at 300 pounds pressure and can be supplied with from one to six guns, allowing six cars to be washed at one time. The bottles of the oil service sets are of a special design to display the oil attractively. They are narrow at the top and corrugated at the bottom, permitting easy handling with greasy hands.

* * *

Dr. M. L. Hartmann, who has been for nine years in charge of the research department of the Carborundum Co., Niagara Falls, N. Y., has resigned to become technical director of the Celite Products Co., Los Angeles, Calif., whose research laboratory is at Lompoc, Calif. Dr. Hartmann is a graduate of the University of Arizona and received his degree at Harvard. He was formerly head of the chemistry department in the South Dakota State School of Mines.

The Shaffer Tool Works, Brea, Cal., has brought out a new "bean" for flowing wells which is adjustable in sixty-fourths of an inch instead of in inches or half inches which have been the closest steps possible in regulating wells with most beans.

The new device consists of a venturi tube screwed into a forged steel tee in which is a screw having a hardened steel tip. On the screw is a gauge by which the size of the orifice can be quickly ascertained. The size of the orifice is adjustable from zero to the full diameter of the venturi tube by simply turning a handwheel. A clamp locks the screw in position and means for padlocking the hand wheel can be furnished. All parts coming in contact with the oil are of rolled or forged steel.

With the growing realization of the importance of keeping the gas in the producing sand to as great a degree as possible, much work has been done in the past few months toward improving methods of choking the flow of wells. Flowing wells wide open dissipates the gas rapidly. It has been found in some cases that putting back pressure on the well actually increases production of oil and decreases the flow of gas.

Operators are finding that each well is an individual problem as far as rate of flow is concerned. Some give maximum production with minimum of gas and sand when flowing through an orifice of a certain size, others through openings of different sizes.

The closely adjustable bean makes it possible for the operator to play with his well until he finds the most favorable size of orifice when he can leave it that way, assuring against any change in rate of flow by locking it in position. The accompanying cut shows how the new device looks.

* * *

Announcement is made of the appointment of J. P. Dobbins as district manager of Mid-Continent operations, by the Brooks Engineering Corp. of Los Angeles. Mr. Dobbins has opened offices at 833 Mayo building, Tulsa, and complete stocks of BECO tank equipment will be carried for the convenience of the trade, he states.

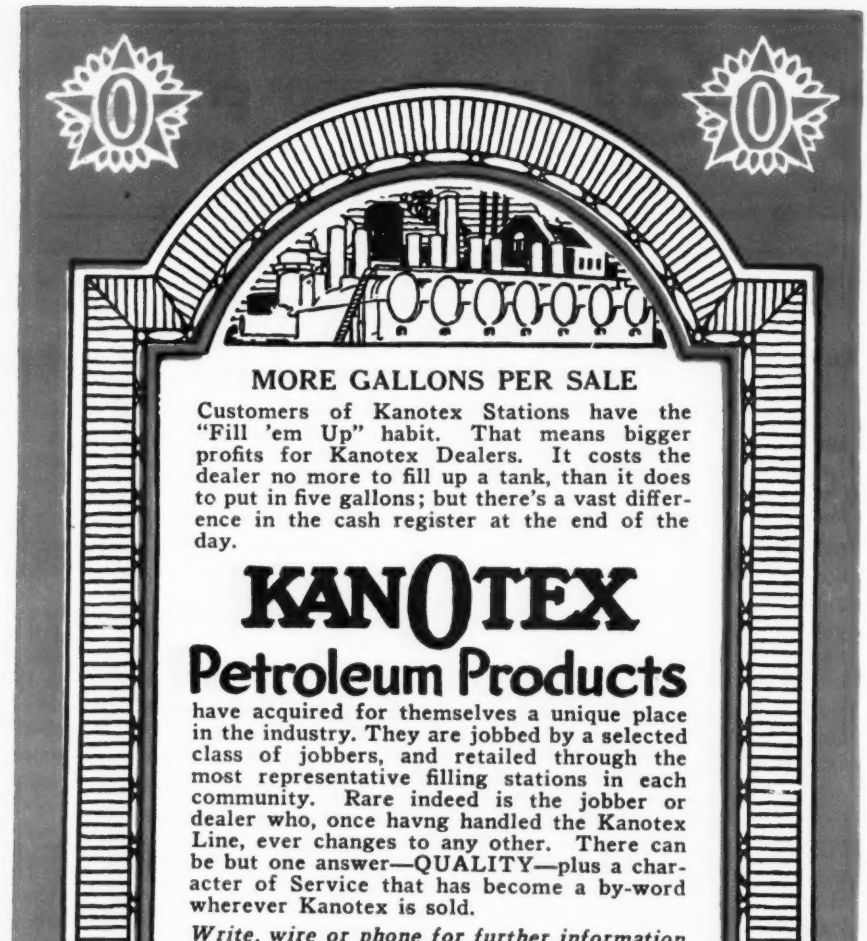
Mr. Dobbins is a graduate mechanical engineer from Lehigh University. For the past two years he has been engaged in sales and service work of refinery equipment. Prior to that time he was with the Cosden company for nine years in their West Tulsa refinery. Working variously in the experimental and operating departments; manager and engineer of testing department; assistant chief operating engineer and then chief operating engineer.

* * *

Youngstown Boiler & Tank Co., Youngstown, O., announces that O. C. White became vice president of the company Jan. 1. Mr. White has had experience with the Pittsburgh Des Moines Steel Co. as contracting engineer and with the United Iron Works of Kansas City as well as with the company with which he is now associated. The Youngstown Boiler & Tank Co. has recently moved into a new million dollar plant.

* * *

The Williams Oil-O-Matic Heating Corp., Bloomington, Ill., has put out a very handsome portfolio entitled, "Prospering with Oil-O-Matic." The purpose of the portfolio is stated to be to visualize to dealers and prospective dealers the possibilities for profit which an Oil-O-Matic offers them.


MORE GALLONS PER SALE
Customers of Kanotex Stations have the "Fill 'em Up" habit. That means bigger profits for Kanotex Dealers. It costs the dealer no more to fill up a tank, than it does to put in five gallons; but there's a vast difference in the cash register at the end of the day.
KANOTEX
Petroleum Products
have acquired for themselves a unique place in the industry. They are jobbed by a selected class of jobbers, and retailed through the most representative filling stations in each community. Rare indeed is the jobber or dealer who, once havng handled the Kanotex Line, ever changes to any other. There can be but one answer—QUALITY—plus a character of Service that has become a by-word wherever Kanotex is sold.
Write, wire or phone for further information today to
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to acquire a working technical knowledge of the selection, application and use of lubricants, by ordering for each one a copy of the PRACTICE OF LUBRICATION, by T. C. Thomsen.

It discusses the origin, nature and testing of lubricants and every phase of lubrication engineering.

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NATIONAL PETROLEUM NEWS

825 Caxton Building Cleveland, Ohio

Profits By Helping In Street Widening

FORT WORTH, TEX., Jan. 28.—A street-widening program which necessitated the razing of an old service station by the Cities Service Oil Co. here and building of a new one, incurring several thousand dollars' of expense resulted, however, in an increase of 30 per cent in gasoline gallonage. Access of approach, attractiveness of the station and its complete facilities are given as some of the reasons for the increased business. An open station was built without the usual canopy to which motorists here were accustomed. Opposition to this type of station was experienced at the beginning but is now receiving favorable comment, it is said.

When the city decided to widen West 7th St., on which the station is located, it was necessary to have a 10-foot strip off the Cities Service property. The company co-operated with the city to the fullest extent, giving them the 10-foot strip and in addition razing their old station and erecting the new one. The city in turn permitted the company to lower the grades of its station corner which provides an easy approach from both Seventh and Penn Sts.

Convenience to the motoring public was carried out in building the station. The drive-ways are wide, and the station equipped with two rest rooms, an attractive office room, and lube oil and grease storage room with an outside door to eliminate the necessity of attendants passing through the office with oils and greases.

A feature of the station is the lighting. Six light standards with five lights each have been placed on the grounds, and there are five lights on each gasoline pump, as well as larger lights at each corner on top of the building, and on the front and sides of the building.

Jobber Erecting Water Terminal

FALL RIVER, MASS., Jan. 28.—Water shipments will start in the spring from the bulk terminal of Durfee & Canning Petroleum Products Co. here, which is now being built. Tanks with a total capacity of 6,400,000 gallons are being installed, according to Chester H. Canning, treasurer. Construction of a wharf is under way and the station will also have a side track of 400 feet.

New Bedford, Fall River and Taunton, Mass. will be supplied from this plant.

Coryell in Council Bluffs

LINCOLN, NEB., Jan. 28.—The firm of L. L. Coryell & Son has bought ground for an eight-pump filling station in Council Bluffs, Ia. It is near the National Refining Co.'s warehouse. The company now has outlets in Des Moines, Ia., St. Joseph, Mo., and Beatrice, Neb.

Promises of speedy shipment are kept by BUTLER

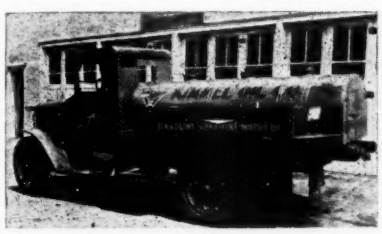
Even larger truck tanks are sent out in 10 days or less when word is given —and they are sent lacquered and lettered.

A 450-gallon truck tank order was received April 26, and March 4—8 days later—Butler shipped it to Jonesboro, Arkansas. This tank was lacquered *and lettered.*

A 600-gallon truck tank order was received May 11, and May 14 —3 days later—Butler shipped it to Montevallo, Ala. This tank was lacquered *and lettered.*

A 450-gallon truck tank order was received June 7, and June 16 —9 days later—Butler shipped it to Okeene, Oklahoma. This tank was lacquered *and lettered.*

A 500-gallon truck tank order was received Sept. 3, and Sept. 11 —8 days later—Butler shipped it to Madison, Kansas. This tank was lacquered *and lettered.*



Butler Truck Tank Features—

12-inch adjustable sills (you can change your tank from one chassis to another), bilged heads and partitions (to prevent vibrations and ultimate leakage), 6-inch fill openings, special plugs with handles, full-flow triplex air vents, detachable drop panel side can rack, Butler Lacquer Finish (like that on the finest pleasure cars) sprayed on and other desirable features. Butler Oil Equipment Catalog describes them. Send for this book today.

Butler Building Catalog is complete. Shows actual installations of drive-in stations, warehouses, gasoline plants, etc., that oil men are using. Many features and pictures. Send for a copy.

Butler Products include: Ready-Made Steel Buildings, Cans, Buckets, Funnels, Measuring Pumps, Truck Tanks, Underground Tanks, Storage Tanks, Bolted Tanks, Etc.

TRADE STEEL BUTLER PRODUCTS MARK

Butler tanks of even the larger size are shipped (lacquered *and lettered)* in 10 days or less when promise has been given.

It is service such as this, combined with quality and reasonable prices, that has given Butler its reputation of reliability and dependability.

Send for our complete Oil Equipment Catalog. It fully describes these tanks and other oil equipment supplies.

BUTLER MANUFACTURING CO.,

KANSAS CITY, MO. **MINNEAPOLIS, MINN.**

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HERE & THERE

National Petroleum News

Fred J. Warren, who has been with the Cardinal Petroleum Co., Muskegon, Mich., for the past two years, resigned Feb. 1 to become traveling representative for the Reliable Tire & Accessories Co., Muskegon, wholesaler of automotive and radio supplies. Mr. Warren will work out of the newly opened store at Grand Rapids in central Michigan counties. His home will remain at Muskegon.

Previous to his connection with the Cardinal company, Mr. Warren was for 10 years representative for the Sun Oil Co., Philadelphia traveling out of Grand Rapids.

* * *

M. B. Urquhart, mechanical and sales engineer with headquarters at Denver, who has been northwestern manager for the past 20 years for the Keystone Lubricating Co., Philadelphia, resigned from that concern on Jan. 1 to assume the western management for the Philadelphia Grease Mfg. Co., Philadelphia. The latter company is manufacturer of Philadelphia grease, and has its western offices and warehouses at Denver and at Salt Lake City.

* * *

Axtel J. Byles, New York, president of the Tide Water-Associated Oil Co., Tide Water Oil Co., and Associated Oil Co., was in California during a part of January discussing with heads of departments of the Associated Oil Co. the petroleum conditions in the state. He stopped at Los Angeles for a few days and then continued to San Francisco.

* * *

J. C. Siegel, president of the Erie Oil Co., Inc., Erie, Pa., accompanied by Mrs. Siegel and daughter Helen, left for Miami Beach, Fla. during the week of Jan. 17, where they expect to stay for two weeks. From there they will go to Havana, to the Bahamas and to Bermuda. They will be gone about six or seven weeks, according to E. J. Rastatter, cashier.

* * *

A. J. Callahan, president of the American Oil Corp., Jackson, Mich., was completing a long trip east during the week of Jan. 17. Mr. Callahan visited Cleveland, Baltimore, Philadelphia and New York. He's planning for a good gallonage this summer.

* * *

A. H. Leprohon, manager at New York City for the Warren G. Black Co., severed his connections with that company on Jan. 1, and after 25 years of service, retired from the oil business.

* * *

W. C. Hudson, Jr., president of The Brilliant Oil Co., Rush Run, O., spent the recent holidays in Cincinnati, O.

W. N. HOLT

President and General Manager of Holt Oil Co., Smithfield, N. C., who was elected vice-president of the newly-organized North Carolina Independent Oil Jobbers Association, Greensboro, N. C., on Dec. 7.

J. M. Hagan, who has been general manager of the Dixie Filling Stations, of Hartford, Conn. for the past two years, has announced his resignation effective Feb. 1. Since Mr. Hagan's connection with the company the latter had been acquired by the Beacon Oil Co., Boston, with refinery at Everett, Mass. and has been operating as the Colonial Filling Stations division of the Beacon Oil Co. Of that division Mr. Hagan was one of the assistant sales managers.

* * *

F. J. Able, lubricating oil salesman in East St. Louis, Ill., for the Standard Oil Co. of Indiana, has succeeded E. L. Kachelhoffer as agent at East St. Louis for that company. T. W. Wilson has succeeded Mr. Able as lube salesman. Mr. Kachelhoffer resigned.

* * *

"Wes" Cooksey, owner of the Wes Cooksey Oil Co., Brookville, Ind., distributor of Shell products, has just completed a tour to Miami, Fla., thence to Houston, Tex. where he has been studying conditions in the oil industry.

* * *

Elmer Gallagher, formerly bulk gasoline and lube oil representative for the Continental Oil Co., under the supervision of Joe L. Walsh, is now with the Inter-State Oil Co., Kansas City, Kan., in charge of north Missouri, North Kansas and Iowa.

R. S. Lenge, who has been salesman in the Peoria, Ill. territory for the lubricating department of the Skelly Oil Co., El Dorado, Kan., has been transferred to Kansas territory.

R. N. Cooper, salesman in the Mitchell,, S. D. territory, has been transferred to El Dorado, where he is now employed in the lubricating department.

J. Litsey Smith, manager of the lubricating department at El Dorado, has returned to his desk after a brief visit in Oklahoma.

W. W. Wray, Colorado representative of the same department, has returned to his territory after spending a few days at the El Dorado refinery.

* * *

Charles Grout, who has been in the oil marketing business in Rockford, Ill., has just been appointed sales manager for the A. B. James Service Station Co.

Mr. James, who was formerly in the oil jobbing and marketing business in Belvidere, Ill., and who sold out to the Sinclair Refining Co. the latter part of October, is now operating at Rockford, and expects to open several service stations at that point in the spring.

* * *

Myron G. Wilson, who was formerly with the Coshocton, O. branch of the Farber Motor Sales Co., was recently appointed Coshocton district manager for the Standard Oil Co. of Ohio. This district comprises Coshocton, Trinway and Newcomerstown, O.

Mr. Wilson succeeds J. R. McCullough, who was appointed field assistant out of Columbus, O. offices.

* * *

L. L. Long, who was formerly with the Pittsburgh, Pa. office of the Johnston Oil Refining Co., is now in charge of tank car sales in the wholesale division of Waverly Oil Works Co., Pittsburgh.

* * *

M. E. Foster, of the sales department of Phillips Petroleum Co., Bartlesville, Okla., formerly of the engineering department, returned home on Jan. 23 from a trip east, where he had been telling customers of Phillips' natural gasoline.

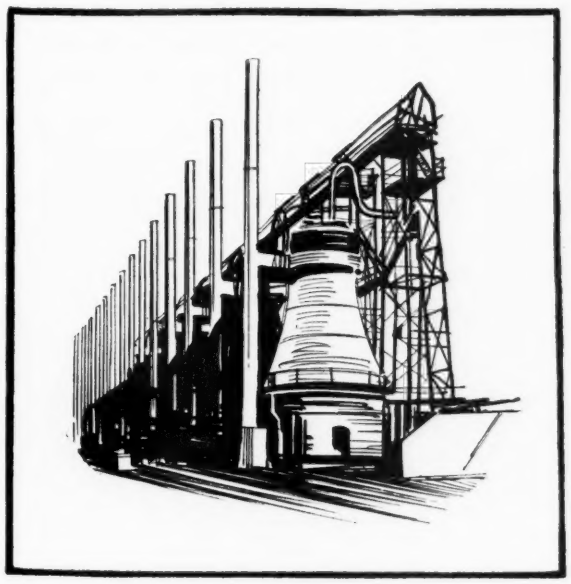
* * *

Roy E. Spear, sales manager of Inter-State Oil Co., Kansas City, Kan., who is confined to his home on account of operations, is reported getting along well and is expected to be up and around within two or three weeks.

* * *

E. Quinby Smith, treasurer of The Sterling Petroleum Co., Mt. Sterling, O., has been elected president of the newly consolidated The First-Citizens National Bank.

TRADE MARKED *team-mates* FOR YOUR PROFIT!



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REGISTERED U.S. PATENT OFFICE

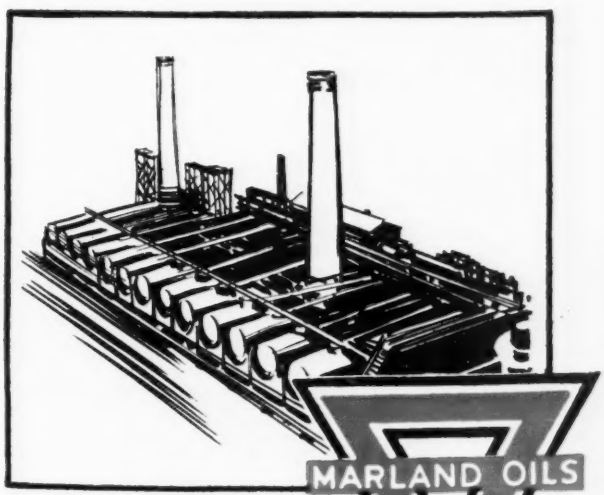
Trade-marked—Marland "Pressure" Gasoline—because it comes from the most modern high-pressure stills.

"Pressure" Gasoline—because it really brings high-pressure performance to any motor . . . . no injurious chemicals—more power—quicker starting—less carbon—no knock—and a smoothness unknown before. The public have and are definitely reacting to Marland "Pressure" gasoline advertising . . . . consumer acceptance that is crystallizing into consumer demand!

MARLAND **Super** MOTOR OIL

And trade-marked—Marland "Super" Motor Oil—that's the other brawny teammate. Hidden away in the crank-case . . . . performing its vital duty in a way that is winning hundreds of new friends every day. Motor Oil refined under a patented process exclusive to Marland.

Marland "Super" is really "an oiler oil" . . . . spreads to all surfaces quickly—deadens friction as no oil has yet done. It *is* an oil that is better . . . . and the public is spreading the news constantly!



We suggest that you write at once for particulars.

MARLAND REFINING CO., PONCA CITY, OKLA.

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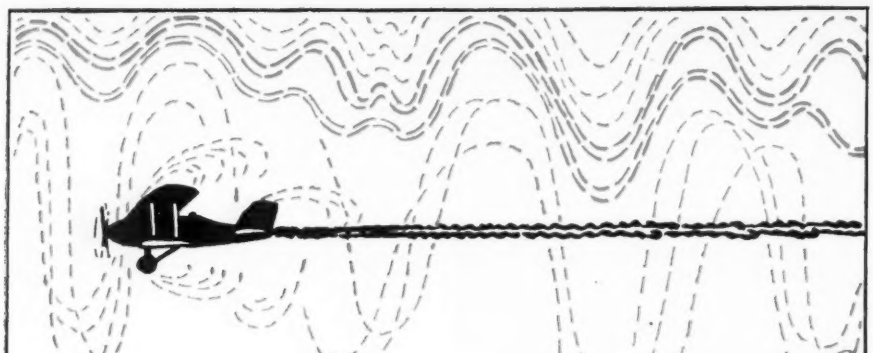
3039 Walnut St., Denver
St. Paul—Minneapolis
11 Broadway, New York
Hammond, Indiana
Prior and University Ave., Minnesota Transfer, Minn.
321 Finance Bldg., Kansas City
Texas City, Texas

Cable "MARLANOIL" New York

MARLAND TEAM-MATES



Steer a Sraight Course to Greater Oil Profits With Rhodes Dispensers

ONLY the green flier changes his controls to meet each small air bump. The pilot with confidence in his ship's stability flies a straight course, unmindful of the little wind flurries.

With Rhodes Equipment, you can steer a straight course to greater oil profits. Rhodes Equipment has *stability*, because it is fundamentally right.

By using Rhodes Dispensers you serve your customers as you yourself would want to be served. The Rhodes Bottle is *prefilled* and ready to deliver oil immediately. Made of clear glass, it shows the true color of the oil. It can easily be labeled with the brand name.

The buyer can see that it holds full measure, and when it is inverted into the oil port, he can see all the oil go into his car.

Put your faith in Rhodes Equipment, which has landed thousands of filling stations into the field of bigger oil profits.

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RHODES *SPEED-UP* *OIL DISPENSERS*

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ALLISON COUPON CO. **Indianapolis, Ind.**

New Oil Station Construction

Duluth, Minn.—Harbor City Oil Co. is building one bulk station and three service stations here, according to E. T. Johnson, secretary and treasurer. Three 18,000 gallon storage tanks are being installed.

This company is a recently organized one, and officers, besides Mr. Johnson, include: Mark Crassweller, president; A. M. Eagles, vice president; and Herbie A. Lewis, director and sales manager.

* * *

Fall River, Mass.—Bulk and service station will be built here by Durfee & Canning Petroleum Products Co. Filling station will be equipped with high pressure greasing equipment and modern type of oil pits, according to Chester H. Canning, treasurer.

* * *

Evanston, Ill.—Johnson Oil Refining Co. is building eight bulk stations at the following points: Charleston, Bloomington, Springfield, Peoria and Decatur, Ill.; and Terre Haute, South Bend and LaFayette, Ind., according to I. F. Johnson, secretary.

* * *

Gallipolis, O.—Lloyd & Myers Oil Co. will build another service station here on the Scenic highway. A tourist park will be operated in connection with the station. Station will be completed by Apr. 1. National Refining Co.'s products are handled.

* * *

Chicago Heights, Ill.—Three Star Oil Co., which formerly operated as Mulhollan's Oil Co., is seeking site for service station, according to F. Mulhollan.

* * *

Blackwell, Okla.—The two service and one bulk station of the Champlin Refining Co. here have just been taken over by the Federal Oil Co.

* * *

Detroit Lakes, Minn.—Bulk and service station is being completed here by Albert Kandt, to market Marland Refining Co.'s products.

* * *

Dubuque, Ia.—The Ionia Oil Co. is building bulk and service station at Elizabeth, Ill. Headquarters are at Dubuque.

* * *

Crawfordsville, Ind.—G. W. Deer & Son Corp. is building service station, according to Paul Deer, secretary and treasurer.

* * *

Blackwell, Okla.—Magnolia Petroleum Co. and The Texas Co. are each completing service stations here.

* * *

Steubenville, O.—Stanton Motor Co. is building service station here.

* * *

Johnstown, O.—Rice Oil Co. is erecting service station.

New Patents

Production

Swab.—Henry Alfred Porter, Los Angeles, Calif. Filed Aug. 23, 1926. No. 1,614,747.

Wire-Line-Drilling Clamp.—Clyde S. Wright, Toledo, Ohio, assignor to The National Supply Co., Toledo, Ohio. Filed Oct. 21, 1926. No. 1,614,581.

Tongs or Wrench.—John Grant, Los Angeles, Calif. Filed Nov. 21, 1922. No. 1,614,610.

Machine for Dressing Bits.—Charles A. Butler, Okmulgee, Okla. Filed Dec. 21, 1923. No. 1,614,649.

Protected Standing-Valve Puller.—Randall C. McKown, Los Angeles, Calif., assignor to Axelson Machine Co., Los Angeles, Calif. Filed Aug. 23, 1926. No. 1,614,747.

Air-Lift Pump.—Ralph H. Tucker, Los Angeles, Calif. Filed Apr. 1, 1925. No. 1,614,765.

Pump Having Standing-Valve Puller.—Jule C. Axelson and Wilhelm Jardh, Los Angeles, Calif., assignors to Axelson Machine Co. Filed Aug. 13, 1923. No. 1,614,771.

Temper Screw.—Frederick A. Turner, Okmulgee, Okla. Filed Apr. 14, 1925. No. 1,614,813.

Tubular Coupling.—Robert A. Wilson, Dallas, Tex., assignor to The Guiberson Corp., Dallas, Tex. Filed June 25, 1925. No. 1,614,815.

Cutter.—Winfield S. Jones, Brea, Calif., assignor of one-eighth to Harold U. Baker, Los Angeles, Calif.; three-sixteenths to Elmore D. Jones, Taft, Calif.; and one-fourth to L. T. McCucheon and one-fourth to J. F. McMahon, both of Los Angeles. Filed May 15, 1923. No. 1,614,840.

Circulating Plunger Pump.—Clarence S. Boden, Los Angeles, Calif. Filed June 12, 1925. No. 1,614,865.

Tubing Release Valve.—Charles A. Wilson, Torrance, and James B. Gocke and Charles F. De Corse, Los Angeles, Calif., assignors to Superior Valve Co., Los Angeles, Calif. Filed May 5, 1924. No. 1,614,908.

Perforator.—Daniel W. Hoferer, Whittier, Calif., assignor to Joy J. Richart, Whittier, Calif. Filed June 16, 1924. No. 1,615,172.

Refining

Distillation of Evaporation of Liquids.—John Lewis Major, London, and Benjamin Taylor, Bilston, England. Filed Jan. 23, 1925. No. 1,614,483.

Hydrocarbon Fuel and Process of Making Same.—Lester Kirschbraun, Chicago, Ill. Filed Apr. 1, 1920. No. 1,614,559.

Combustible Fuel and Process of Making Same.—Lester Kirschbraun, Chicago, Ill. Filed Aug. 16, 1920. No. 1 614,560.

Art of Distilling Oils.—Frank Atherton Howard, Elizabeth, N. J., assignor to Standard Development Co. Filed Feb. 14, 1921. No. 1,612,289.

Control Means for Fluid Flow.—Edwin C. Weisgerber, Long Beach, Calif., assignor to Petroleum Appliance Syndicate, Los Angeles, Calif. Filed Apr. 11, 1925. No. 1,612,406.

Fractional Distillation. — Richard B. Chillas, Jr., Philadelphia, Pa., assignor to The Atlantic Refining Co., Philadelphia, Pa. Filed June 30, 1925. No. 1,612,572.

Process for the Production of Chlorine and Aluminum Chloride.—Edson R. Wolcott, Los Angeles, Calif., assignor to The Texas Co., New York, N. Y. Filed Feb. 28, 1921. No. 1,612,686.

Miscellaneous

Manufacture of Iron Carbonyl.—Martin Muller-Cunradi, Ludwigshafen-on-the-Rhine, Germany, assignor to I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, Germany. Filed May 27, 1926. No. 1,614,625.

Process for Producing Carbon Black from Natural Gas.—Edward B. Parsons and William D. Inskeep, San Francisco, Calif., and William Hunt, Baltimore, Md. Filed May 19, 1925. No. 1,614,685.

Process of Making Adsorbent Carbon.—Oscar L. Barnebey, Columbus, and Merritt B. Cheney, deceased, late of Briggsdale, Ohio, by Josephine B. Cheney, administratrix, Briggsdale, Ohio. Filed Feb. 14, 1925. No. 1,614,707.

Distillation Apparatus.—Earl R. Hamilton, Nitro, W. Va. Filed Nov. 1, 1923. No. 1,614,791.

FAUCETS! FAUCETS! FAUCETS! FAUCETS! FAUCETS! FAUCETS!

"Kwik-Flo"
"Fast-Flo"
"Max-Flo"

"Push-Pul"
"Skrew"
"Rench"

STEEL DRUM ACCESSORIES CORP.

BUFFALO, NEW YORK

ETHYL GASOLINE CORPORATION

25 BROADWAY

NEW YORK

A. M. MAXWELL
VICE-PRESIDENT & SALES MANAGER

February 2, 1927

Dear Mr. Oil Man:

Red-colored gasolines are being offered to the public in increasing number.

Inasmuch as Ethyl Gasoline was the first red-colored fuel to be placed on general sale and imitations of Ethyl Gasoline are colored to resemble it, it is interesting to remember this:

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What makes Ethyl Gasoline the only completely "knockless" fuel is the Ethyl Brand of Anti-Knock Compound developed by General Motors after years of research. The Compound is added to gasoline at the refiners of our licensed distributors and its manufacture and use are covered by basic patents.

Yours for a square deal,

A. M. Maxwell

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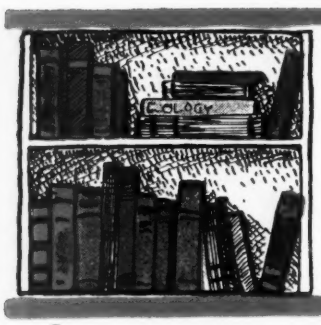
BRAND OF ANTI-KNOCK COMPOUND
ETHYL GASOLINE CORPORATION
NEW YORK, U.S.A.
Knocks out that "knock"



Oil Man's Bookshelf

A successful department head remarked the other day:

> **"I find it necessary to keep up a constant program for *self improvement* in order to prevent my becoming obsolete so far as my value to my company is concerned."**

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"Accounting for the Petroleum Industry" by D. F. Morland and R. W. McKee, is one of the most practical and comprehensive works on accounting principles and procedure for all branches of the oil industry — production, transportation and storage, refining, marketing.

Accounting for each branch is discussed separately; description of technical practices is given, and the accounting problem to be solved in each activity is set forth together with sample forms in use; tables for depreciation rates, etc.

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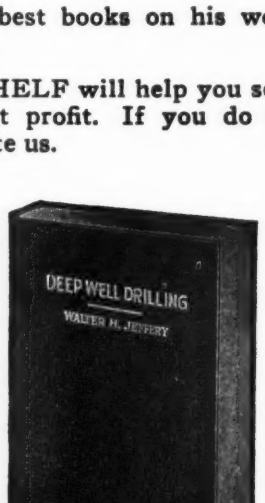

The second edition of "Deep Well Drilling" by Walter H. Jeffery is just out. The material in the first edition has been rewritten thruout with several new chapters on improvements in the art of drilling.

"Deep Well Drilling" discusses exhaustively cable tool drilling, rotary drilling, core drilling in all their phases; tells how to fish for lost tools; how to case, how to use packers, how to cement and how to shoot; how to plan operations intelligently; specify material, etc.

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RECOVERY of GASOLINE from NATURAL GAS

A glance over a few of the chapter headings indicates how thoroughly the author, George A. Burrell, goes into the subject of "Recovery of Gasoline from Natural Gas" in his new book:

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ON THE LAZY BENCH

National Petroleum News

Life in Panhandle

Way down in Dear Old Panhandle
In the Bridgeport Supply Store
The drillers and toolies would scramble
For a flop on the concrete floor.
There is old Amos Driane, a brother of Lou.
Paper Sack Whitey and Big Missou,
Old Jim Kimble, who said it was rough,
Singa Pore Slim and Smithy the Tough.
Johnie Hivick, who felt a bit jerky.
Baldy Kamel and Wire Line Yerkie.
Little Cluide Gronner, who danced and sung,
Fighting Slim Cooper and Yellow Young.
There was Spider Gibson, who had no bed,
Big Hole Ben and Booger Red,
Wyoming Shorty, who sleeps on a sack,
Old Grant Emery and Toleato Jack.
Mr. Holman is a very nice man,
He treats the boys the best he can.
He lets them sleep in the Bridgeport Store.
To get their flop on the concrete floor.

—Bridgeport Driller

◈ ◈ ◈

The Important Thing

Miss Quete—Say, porter, there's 20 minutes difference between the time of the clock in the station and the one in the waiting room.

Porter—That don't make no difference, miss, about dem clocks. De train goes at 5:09.

—The Loreco Diamond

◈ ◈ ◈

Aint Experience a Grand Teacher?

Tommy: "Is that a lion or lioness, papa?"

Father: "Which one, dear?"

Tommy: "The one with its face scratched, and the hair off its head."

Father (with a sigh): "That must be the lion."

—The Marion Line

◈ ◈ ◈

Gladys: "When he saw his enemy coming he turned and ran. I call that cowardice."

Jim: "Not at all. That's strategy. He remembered the earth is round and he intended to run and attack the enemy from the rear."

—The Atlantic Seal

◈ ◈ ◈

It is said to be possible to tell a man's character by his behaviour at meals, if he blows on his soup in a restaurant he's an optimist.

—Keene Thrusts

Another Reason For Wearing Whiskers

Insurance Agent: "Madam, is your husband at home?"

Lady: "Yes, he is in the barn with the cattle."

Insurance Agent: "Shall I have any trouble finding him?"

Lady: "No. He's the only one with whiskers."

—The Bridgeport Driller

◈ ◈ ◈

Innocent Bystander

The Boy Friend—"Say, who's the dumb-looking guy that drives your car around, and works in the garden. I notice he always gives me a nasty look when I come in."

The Girl Friend—"Oh, don't mind him. That's just father."

—Independent Topics

◈ ◈ ◈

Sad Story

Diner—"Waiter, there's a button in my soup."

Waiter (ex-printer)—"Typographical error, sir; it should be mutton."

—The Loreco Diamond

◈ ◈ ◈

Lamb Springs

John Hancock (John Hancock Co.)—"Waiter, what kind of meat is this?"

Waiter—"Spring lamb, sir."

John—"I thought so. I've been chewing on one of the springs for the last fifteen minutes."

—The Unloading Rack

◈ ◈ ◈

Liquid Measure

According to a college humorist, "Two pints make one quart; two quarts make one wild."

—The Loreco Diamond

◈ ◈ ◈

Literally Speaking

"Going to the lecture on appendicitis tonight?"

"No, I'm tired of these organ recitals."

—The Loreco Diamond

◈ ◈ ◈

Juicy Moron

"Why does Mary call you maple syrup?"

"Because I am such a refined sap."

—Independent Topics

◈ ◈ ◈

Sign on Panhandle restaurant: "Table d'hote Dinner, 60 cents. Soup changed daily."

—Bridgeport Driller

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COMPANY
PETROLEUM PRODUCTS

THREE MODERN REFINERIES:
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operated on Ohio Crude
Coffeyville, Kansas Refinery
operated on Midcontinent Crude

National Headquarters
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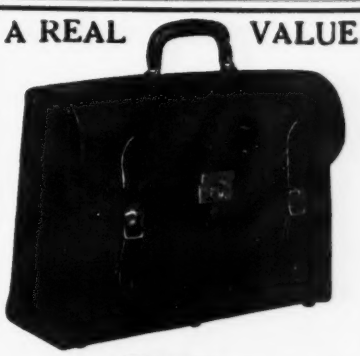

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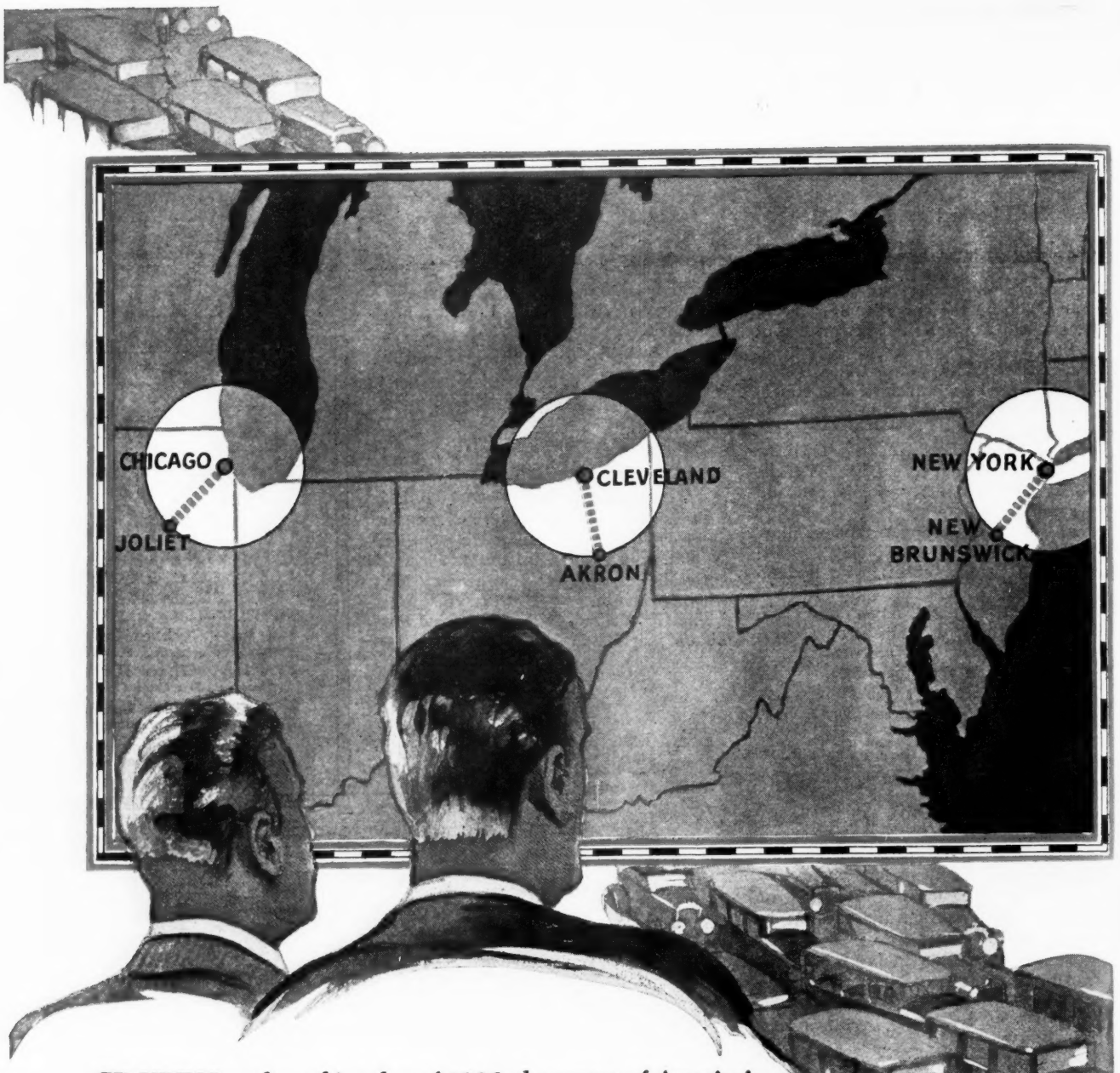


DURING each working day of 1926, the output of America's passenger car and truck manufacturers was so great that the machines, if placed touching one another, would have formed a solid line 32 miles long.

Let the above map help you get a clear picture of what that means in actual distance, or think of some town about that far away from you.

Truly a vast market for Canfield Filtered Motor Oils and Canfield Press-Sure Lubricant—the best you can supply!

Canfield

Refinery - Tank Wagon Markets

National Petroleum News

Bad Weather Depresses Gasoline Prices, Naturals, Kerosenes are Firmer

Staff Special
TULSA, Jan. 29

SNOW, sleet and rain over the marketing territory as far south as the Mid-Continent refining area, exerted considerable pressure on gasoline prices this week, causing almost all grades to lose ⅛ to ⅜ cent a gallon.

The natural conclusion would be that the cold weather would have rallied distillate business but this has not been the case so far, many refiners said today. Jobbers probably had enough oils in storage to take care of emergencies, and may delay their purchases until their stocks become still lower.

The cold wave hit the Mid-Continent last Saturday and Sunday, and when business opened Monday refiners found they were unable to reach many points both north and south by telephone. Warmer weather set in late in the week and gasoline business immediately showed some pick up.

A few inquiries were circulated this week for gasolines for shipment over the first half of next month, but in most instances the ideas of the buyers and the sellers were not in accord. One refiner who has been selling his 58-60 U. S. Motor for immediate shipment at 8¾ cents refused to take any orders for over February at less than 9 cents. Representatives of several marketers said they had been unable to find many places where U. S. Motor could be bought for deferred shipment at 8¾ cents.

Exporters remained inactive except for the purchase of half a cargo of 61-63, 400 end point gasoline and U. S. Motor by the North American Car Corp. Officials of this company said they expected to complete the cargo in time to ship around March 1. They have not been actively pushing their purchases, they said, but have taken a little material from refiners in practically all areas.

THE smaller refiners who either have no storage facilities or who do not wish to store their gasolines have been the predominant factors in the market lately. The larger refiners who are in a position to store gasoline, have been putting most of their production in storage and quoting prices ¼ to ½ cent above the market. Many here believe that the next revision in crude prices will be upward, and refiners naturally think their gasoline stored now will bring them a much larger net return when the spring demand for gasolines has developed.

North Texas refiners continued to work on their export orders and there still is a comparatively small amount of U. S. Motor made in their field. Those making this grade, therefore, have been in a position to hold their prices well in line, the freight differential from Oklahoma being the only factor they had to watch.

Kansas refiners reported their gasoline business was about on a par with the Group 3 movement, the bad weather also affecting them. Rains in the Southeast held the Arkansas and Louisiana markets down.

Natural gasolines ended the week with indications that their downward plunge which has been in progress since Jan. 1 had finally been checked. Considerable buying developed the last three days and manufacturers were inclined to believe prices were becoming firm again.

At the present price level manufacturers declare they are losing money on every gallon sold. One large refining-manufacturing company moved a considerable amount of naturals into storage when it found itself with quantities on hand and no orders obtainable.

Several inquiries were sent into the field this week for shipment over February, and in view of the fact that at least two of these inquiries were for material to move east, the natural assumption was that the eastern buyers were ready to enter the market again on a large scale.

ONE large eastern company has been buying Grade C for shipment either out of Texas or Oklahoma, the manufacturers in the latter area, however, being forced to ship on a north Texas rate and absorb the freight difference of almost ½ cent. This company already has bought enough Grade C to cause that commodity to become firmer whereas a week ago this grade was extremely hard to move and considerable distress material available.

Another large company Friday entered the market for any Grade C obtainable under 6 cents a gallon, but today had been able to get only 35 or 40 cars. The buyer for this company said that when he started to buy he called one manufacturer who generally has some distress material or is willing to sell over the month. The buyer was surprised to find this company wasn't interested in selling at present at any price, an indication that someone already had taken their gasolines.

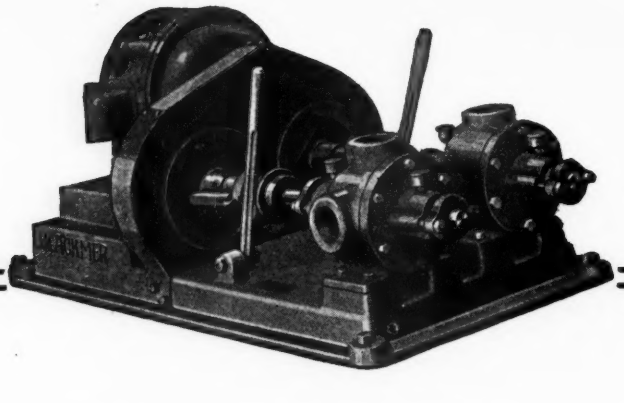
One of these large companies the latter part of 1926 bought a large quantity of Grade C on the market date of shipment plan, with the stipulation that the material move from north Texas. The purchase was so large that practically all the Grade C was put under contract, and prices were almost ½ cent above those in Oklahoma. This month this company has been quietly buying its own material on the spot market from time to time and this week bought some material at approximately 3 cents a gallon under what was paid on contracts the latter part of December.

KEROSENES continued to move back into the picture. Shipments have picked up somewhat and there has been more buying for storage in anticipation of a good spring demand. One refiner here Wednesday who had to buy on the outside to cover on some orders had considerable difficulty in getting 41-43 water white at 5¾ cents. The price today had moved back to a firm 6 cents. Indications were that a large company in Texas which early in January bought around 100 cars of kerosene probably would be in the market early next week for another quantity.

Distillates remained steady, with 38-40 straw material available in Oklahoma almost all week at 5 to 5¼ cents a gallon. One refiner said today, however, that while he had taken some orders at 5 cents, his price was back to 5⅛ to 5¼ cents, and he believed the market would be up slightly before the end of next week.

Gas oil showed practically no change in Oklahoma, became slightly firmer in Texas, especially on the low cold test grades, but eased off slightly in Louisiana.

Fuel oils in Oklahoma continued to move out in good volume with prices unchanged over the week. Heavy buying by large industrials and rail users in north Texas has put that market in good shape.



Many Times the Life of the Ordinary Rotary Pump

When the ordinary rotary pump loses its suction and when it fails to deliver its rated capacity, it is usually ready for the junk heap. No provision is made for renewing the parts that wear out.

But—when Blackmer Pumps show the effects of wear, it is only necessary to replace a few inexpensive parts and the pump is ready for another long period of service.

Blackmer Pumps are so designed that the brunt of the wear is borne by the "buckets" or impellers. These parts are hung loosely in the recesses in the rotor. When the pump is in operation the buckets are swung out by centrifugal force against the cylinder wall. This positive contact with the cylinder wall gives the pump its effective seal which explains the exceptional suction lift.

The point where the bucket comes in contact with the cylinder wall is the place where wear occurs. The buckets, which are easiest and cheapest to replace, are made of bronze which is softer metal than the cast iron in the cylinder. Consequently, the wear that does occur falls on the buckets.

In order to replace these buckets, it is only necessary to remove the head of the pump and slip the old buckets out and a new set in. Anyone who can handle a monkey wrench can do it. From this explanation it must not be assumed that replacement of buckets is a regular procedure in the operation of Blackmer Pumps. Many cases are on record where they have run for 10 years or more without replacements of any kind. But—when replacements are necessary—they can be made. That's the point.

Our engineers are familiar with the problems of pump installation for unloading tank cars and other purposes. Ask them for any information that you desire.

Blackmer Pump Company
1809 Century Avenue
GRAND RAPIDS, MICHIGAN
Offices in 18 Principal Cities

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

GASOLINE AND NAPHTHA

	Prices Jan. 31	Prices Jan. 24	Prices Jan. 17
PENNSYLVANIA			
52-54 Naphtha	11¼–11¾	11¼–11¾	11½–12
54-56 Naphtha	11¾–12	11½–12	11¾–12¼
58-60 Gasoline	–12	11½–12	11⅝–12
60-62 Straight-run gasoline	12¼–13	12½–13	12½–13
64-66 Straight-run gasoline	13½–14	13½–14	13¼–14
68-70 Straight-run gas. 350-360 E.P.	14 –14½	14½–15	14¾–15
68-70 Straight-run gas. 305-320 E.P.	18 –20	18 –20	19 –20
OKLAHOMA			
48-50 450 E. P. naphtha	9 – 9⅛	9 – 9⅛	9 – 9⅛
50-52 450 E. P. naphtha	9 – 9⅛	9 – 9⅛	9 – 9⅛
56-58 450 E. P. gasoline	8½– 8¾	8⅞– 8¾	8¾– 7⅞
56-58 U. S. Motor gasoline	– 8¾	8¾– 9	8¾– 9
58-60 450 E. P. gasoline	8⅝– 8¾	– 8¾	8¾– 8⅞
58-60 U. S. Motor 437 E. P.	8¾– 9	9 – 9¼	9 – 9¼
60-62 437 E. P. gasoline	9 – 9½	9¼– 9½	9¼– 9½
60-62 400 E. P. gasoline	9⅝– 9¾	9¾–10	10 –10⅛
64-66 390 E. P. gasoline	10 –10⅛	–10¼	10¼–10½
64-66 375 E. P. gasoline	10⅜–10⅝	10½–10¾	10⅝–10¾
68-70 350-360 E. P. gasoline	11 –11¼	–11¼	11¼–11½
KANSAS*			
58-60 U. S. Motor gasoline	9 – 9¼	9¼– 9½	9¼– 9½
60-62, 400 E. P. gasoline	–10	–10¼	10¼–10½
64-66 375 E. P. gasoline	–10¼	–10¾	10⅞–11
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	8½– 8¾	– 8¾	– 9
56-58 450 E. P. gasoline	8½– 8⅝	– 8⅝	– 8⅝
58-60 450 E. P. gasoline	8⅝– 8¾	– 8¾	– 8¾
56-58 U. S. Motor gasoline	– 8¾	8¾– 8⅞	– 8⅞
58-60 U. S. Motor gasoline	– 9	– 9	9 – 9⅛
64-66 390 E. P. gasoline	10 –10¼	–10¼	10¼–10½
64-66 375 E. P. gasoline	10¼–10½	10½–10¾	10⅝–10¾
68-70 350-360 E. P. gasoline	–11	–11¼	–11¼
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	9 – 9⅛	9 – 9¼	9 – 9¼
ARKANSAS			
56-58 450 E. P. gasoline	8½– 8¾	– 8¾	– 8¾
58-60 450 E. P. gasoline	– 8¾	– 8⅞	– 8⅞
58-60 U. S. Motor gasoline	8¾– 9	9 – 9¼	– 9
CALIFORNIA			
*54-58 U. S. Motor 437 E. P.	9½–10	9½–10	9 – 9½
*58-61 U. S. Motor, 437 E. P.	10½–11	10½–11	10½–10¾
*42-45 Engine distillate 445-480 E. P.	7 – 7½	7 – 7½	7 – 7½
*2c tax to be added if used in state.			
NEW ENGLAND (F. O. B. Boston and Fall River)			
58-60 U. S. Motor gasoline	–12¾	–12⅜	–12½

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade AA, 80-87.9 375 E. P.	– 7¼	– 7¾	– 8½
Grade A, 72-79.9 375 E. P.	– 7½	– 7¾	– 8½
Grade BB, 84-92, 375 E. P.	– 6¼	6½– 6¾	– 7½
Grade B, 76-83.9, 375 E. P.	– 6½	6½– 6¾	– 7½
Grade C, 80-90, 375 E. P.	6 – 6⅛	6 – 6¼	– 7¼
NORTH LOUISIANA			
*Grade Double A	– 7¾	– 9	– 9
*Grade Double B	– 6¾	– 8	– 8
*Grade C	– 6½	– 7¾	– 7¾
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	– 7¼	– 7¾	– 8½
*Grade A	– 7½	– 7¾	– 8½
*Grade Double B	– 6½	6½– 6¾	– 7½
*Grade B	– 6½	6½– 6¾	– 7½
*Grade C	6 – 6¼	6 – 6¼	– 7¼
*F. O. B. Breckenridge.			
CALIFORNIA			
75-85, 375-390 E. P. blend	11½–13	11½–13	11½–13

MOTOR FUEL BLENDS

PENNSYLVANIA			
68-70 Grav. 437 E. P. blend	12¼–12½	12¼–12½	12¼–12½
64-66 Grav. 437 E. P. blend	12¼–12½	12 –12¼	12 –12¼
60-62 Grav. 437 E. P. blend	–12	12 –12¼	12 –12¼
68-70 Grav. 420 E. P. blend	12¼–12½	12¼–12½	12¼–12½
OKLAHOMA			
64-66 437 E. P. blend	8½– 8¾	8¾– 9	– 9

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	8 – 8¼	– 8¼	8¼– 8½
46 Water White Kerosene	8¼– 8¾	– 8¾	8¾– 9
47 Water White Kerosene	9 – 9¼	– 9¼	9½– 9¾
OKLAHOMA			
41-43 Water White Kerosene	– 6	5¾– 6	5¾– 6
42-44 Water White Kerosene	6½– 6¾	6½– 6¾	6½– 6¾
KANSAS			
41-43 w. w. kerosene	6¼– 6½	6¼– 6½	6¼– 6½
42-44 w. w. kerosene	6¾– 7¼	6¾– 7¼	6¾– 7
NORTH TEXAS			
40-42 Water White Kerosene	– 5¾	5⅝– 5¾	5⅝– 5¾
41-43 Water White Kerosene	5⅞– 6	5⅞– 6	5¾– 6
NORTH LOUISIANA			
41-43 Water White Kerosene	– 6¼	– 6¼	– 6¼
ARKANSAS			
41-43 Water White Kerosene	– 6¾	– 6¾	– 7
CALIFORNIA			
38-40 Water White Kerosene	6 – 6½	6 – 6½	6 – 6½
NEW ENGLAND			
**40-43 Water White Kerosene	**– 9	none available	**–10

NEUTRAL OIL

PENNSYLVANIA (Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt	32	none available for spot delivery	none available for spot delivery
180 Vis. No. 3 Assoc. Filt	none		
150 Vis. No. 3 Assoc. Filt	none		
(Non-Viscous)			
34 Grav. 330-340 Flash	8 – 8½	8 – 8½	8 – 8¼
36 Miners Neutrals 300-305 Flash	7¼– 7¾	7¼– 7¾	7½– 7¾
OKLAHOMA (Viscosity at 100° F.)			
100 Vis. No. 2 color	7 – 7½	7 – 7½	7 – 7½
150 Vis. No. 3 color	9 –10	9 –10	9 –10
150 Vis No. 4 color	– 9¾	– 9¾	– 9¾
180 Vis. No. 3 color	10 –11	10 –11	10 –11
180 Vis No. 4 color	10 –10½	10 –10½	10 –10½
180 Vis. No. 5 color	10 –10¼	10 –10¼	10 –10¼
200 Vis. No. 3 color	10¾–11¾	10¾–11¾	10¼–11¾
200 Vis. No. 4 color	–11½	–11½	–11½
200 Vis. No. 5 color	9¼–11¼	9¼–11¼	9¼–11¼
220 Vis. No. 3 color	12 –13½	12 –13½	12 –13½
220 Vis. No. 4 color	–13	–13	–13
220 Vis. No. 5 color	12 –12¾	12 –12¾	12 –12¾
240 Vis. No. 3 color	14 –15	14 –15	14 –15
240 Vis. No. 4 color	–14½	–14½	–14½
240 Vis. No. 5 color	13 –14	13 –14	13 –14
280 Vis. No. 3 color	16 –17	16 –17	16 –17
280 Vis. No. 4 color	–16½	–16½	–16½
280 Vis. No. 5 color	15 –16	15 –16	15 –16
300 Vis. No. 5-6 color	–17	–17	–17
GULF COASTAL (Viscosity at 100° F; pour test 0)			
100 Vis. No. 2 Color Unfilt. Pale	8 – 9	8 – 9	8 – 9
200 Vis. No. 3 Color Unfilt. Pale	11 –12	11 –12	11 –12
300 Vis. No. 3 Color Unfilt. Pale	12 –13	12 –13	12 –13
500 Vis. No. 3½ Color Unfilt. Pale	14 –15	14 –15	14 –15
750 Vis. No. 4 Color Unfilt. Pale	16 –17	16 –17	16 –17
200 Vis. No. 5½ Color Red Oil	9 –10	9 –10	9 –10
300 Vis. No. 5½ Color Red Oil	10 –11	10 –11	10 –11
500 Vis. No. 6 Color Red Oil	12 –13	12 –13	12 –13
750 Vis. No. 6 Color Red Oil	15 –16	15 –16	15 –16
CALIFORNIA (Viscosity at 100° F.)			
100 Vis. No. 2 color	9 – 9½	9½–10	9½–10
100 Vis. No. 3 color	7½– 8	8 – 8½	8 – 8½
200 Vis. No. 3 color	9½–10	10 –10½	10 –10½
300 Vis. No. 3 color	10½–11	11 –11½	11 –11½
450 Vis. No. 3½ color	13 –13	13 –13½	13 –13½
550 Vis. No. 3½ color	14½–15	15 –15½	15 –15½
600 Vis. No. 3½ color	15 –15½	15½–16	15½–16
100 Vis. No. 5 color	6½– 7	7 – 7½	7 – 7½
200 Vis. No. 5 color	8½– 9	9 – 9½	9 – 9½
300 Vis. No. 5 color	9 – 9½	9½–10	9½–10
400 Vis. No. 6 color	11 –11½	11½–12	11½–12
500 Vis. No. 6 color	11½–12	12 –12½	12 –12½
600 Vis. No. 6 color	12 –12½	12½–13	12½–13
700 Vis. No. 7 color	14½–15	14½–15	14½–15

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 –35	31 –35	31 –35
150-160 Vis. at 210° Bright Stock	27 –31	27 –31	27 –31
600 E Stock 140-150 Vis. —210°	18 –20	18 –20	18 –20
600 Steam Refined Olive Green	8 –11	8 –11	8 –11
600 Steam Refined Dark Green	5½– 7½	5½– 7½	5½– 7½
Black Oil	5 – 6	5 – 6	5 – 6
PENNSYLVANIA (1-inch Immersion Test)			
600 Steam Refined	12 –12½	12 –12¾	11¾–12½
650 Steam Refined	16 –16½	15½–16	15½–16½
600 Flash	20½–21	20 –21	19½–21
625 Flash	30 –31	–30	29 –30
600 Warren E	20 –20½	20 –20½	20 –20½
600 Oil City E	18½–19	19 –19¼	19 –19½
600 D Filtered	25½–26	25½–26	–26
Cold Test Stocks (bright filtered)	37 –38	36½–38	36½–38
Cold Test Stock (dark filtered)	35 –36	34 –35	34 –35

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

LONG RESIDUUM STOCKS

PENNSYLVANIA			
60-65 vis. @ 210, 440-450 flash No. 5½ color	–34	–33½	–34
70-75 vis. @ 210, 450-455 flash No. 6 color	–35	–34½	–35
80-85 vis @ 210, 440-450 flash No. 7 color	–36	–35½	–36
80-85 vis. @ 210, 450-460 flash No. 7-8 color	–37	–36½	–37
80-85 vis. @ 210, 460-465 flash No. 7 color	–38	–37½	–38
95-100 vis. @ 210, 490-495 flash No. 8 color	–39	–38½	–39

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THE GEYSER-ACTION PROCESS

(*using Skoglund's Acid Concentrator*)

which requires only *One Stage* to bring the Acid up to *Strength* giving a *High Yield* at a *Low Cost*.

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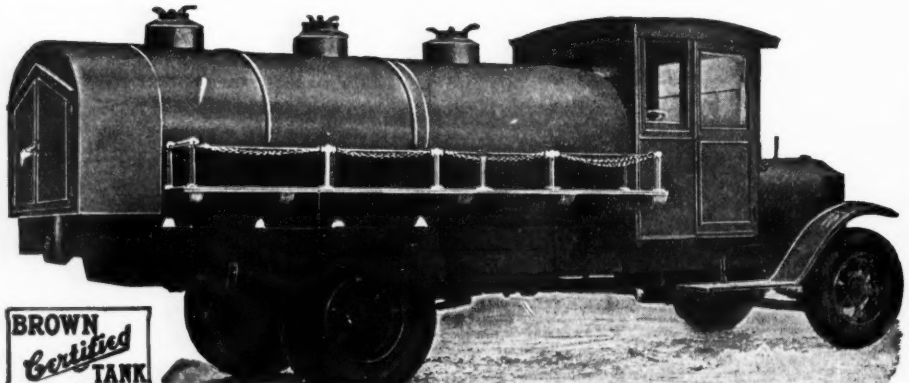

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Other equipment on which you may send prices.....

Name..... Address.....

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California, and New England

WAX

*PENNSYLVANIA	Prices Jan. 31	Prices Jan. 24	Prices Jan. 17
122-124 White Crude Scale.	4⅝– 4¾	4⅝– 4¾	4⅝– 4¾
124-126 White Crude Scale.	– 4¾	– 4¾	– 4¾
OKLAHOMA			
124-126 White Crude Scale.	– 4¼	– 4¼	4¾– 4⅞
CALIFORNIA			
White Crude Scale	6 – 7	6 – 7	6 – 7

*Per Pound, New York

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil	6¼– 6½	6⅜– 6¾	6½– 6¾
30-34 Fuel Oil	6¼– 6½	6⅜– 6½	6¼– 6½
28-30 Fuel Oil	6 – 6¼	6 – 6¾	6¼– 6⅜
OKLAHOMA			
38-40 Straw distillate	5 – 5¼	5 – 5¾	5⅜– 5¼
36-38 Straw distillate	4¾– 5	4⅞– 5	– 5
32-36 Gas oil cracked (Gal.)	4⅜– 4⅝	4⅜– 4½	4⅜– 4½
32-36 uncracked Gas oil, (Gal.)	4¼– 4½	4¼– 4½	4¼– 4½
28-30 Fuel oil (Bbl.)	1.50 –1.60	*1.50 –1.60	1.55 –1.60
26-28 Fuel oil (Bbl.)	1.30 –1.40	*1.30 –1.40	1.30 –1.40
24-26 Fuel oil (Bbl.)	1.25 –1.30	1.25 –1.30	1.25 –1.30
22-26 Fuel oil (Bbl.)	1.20 –1.25	1.20 –1.25	1.20 –1.25
18-22 Fuel oil (Bbl.)	1.17½–1.20	1.17½–1.20	1.17½–1.20
16-18 Fuel oil (Bbl.)	1.17½–1.20	1.17½–1.20	1.17½–1.20
14-16 Fuel oil (Bbl.)	1.15 –1.17½	1.15 –1.17½	1.15 –1.17½

*Zero cold test material bring from 5 to 15 cents more per barrel.

KANSAS*			
38-40 straw distillate	5½– 5¾	5½– 5¾	5½– 5¾
36-38 straw distillate	5¼– 5½	5¼– 5½	5¼– 5½
32-36 Gas Oil	– 4½	– 4½	– 4½
18-22 Fuel Oil	1.25 –1.35	1.25 –1.35	1.25 –1.35
24-26 Fuel Oil	1.45 –1.55	1.45 –1.55	1.45 –1.55

*F. O. B. refinery, Kansas destination.

NORTH TEXAS			
38-40 Straw distillate	4¾– 5	4¾– 5	5 – 5¼
32-36 Gas Oil (Gal.) cracked	4½– 4¼	4 – 4¼	4⅜– 4¼
32-36 uncracked gas oil	4 – 4¼	4 – 4¼	4⅜– 4¼
24-26 Fuel per (Bbl.)	1.52½–1.55	1.52½–1.55	1.52½–1.55
GULF COASTAL			
Fuel	1.55 –1.60	1.55 –1.60	1.55 –1.60
Gas Oil	5¼– 5⅜	5¼– 5⅜	5¼– 5⅜

NORTH LOUISIANA	Prices Jan. 31	Prices Jan. 24	Prices Jan. 17
32-36 Gas oil, cracked (Gal.)	– 4½	– 4¾	– 4¾
32-36 Gas oil, uncracked (Gal.)	4½– 4¾	4¾– 5	4¾– 5
16-20 Fuel Oil (Bbl.)	–1.30	1.25 –1.30	1.25 –1.30
ARKANSAS			
30-34 Gas oil	4½– 4⅝	4½– 4⅝	4½– 4⅝
32-36 Gas oil	– 4¾	– 4¾	– 4¾
Smackover Crude Fuel	1.25 –1.30	1.25 –1.27½	1.25 –1.30
CALIFORNIA*			
14-18 Fuel Oil (Bbl.)	.80 –1.00	.80 –1.00	.80 –1.00
14-18 Bunker Oil (Bbl.)	.80 –1.00	.80 –1.00	.80 –1.00
30-34 Gas Oil (Bbl.)	1.30 –1.35	1.30 –1.35	1.30 –1.35
27 + Diesel Oil (Bbl.)	–1.15	1.15 –1.30	1.15 –1.30

*(San Joaquin Valley, San Francisco 4c per bbl. more.)

NEW ENGLAND (F. O. B. Boston and Fall River)			
30-32 Gas Oil (Gal.)	– 6¼	– 6¼	– 6⅜
Fuel Oil (Bunker C) Bbl.	1.80 –1.97	–1.90	–1.90

PETROLATUMS

PENNSYLVANIA (Cents Per Pound in Tank Cars)*

Snow White	7¼– 7½	7¼– 7½	8½– 9
Lily White	– 6¼	– 6¼	7½– 8
Cream White	– 5¼	– 5¼	– 6½
Light Amber	2⅝– 2¾	2⅝– 2¾	– 3½
Amber	2⅜– 2½	2⅜– 2½	3¼– 3½
Red	– 2⅛	– 2⅛	– 3
Green No. 5 Color	– 1½	– 1½	1¾– 2

*In barrels ¾c a pound more, carlots.

PETROLEUM COKE

OKLAHOMA (Per ton in car lots)

Lump	$5–$6	$5–$6	$5–$6
Breeze	2–2.25	2–2.25	2–2.25
Still Run	3.25–3.50	3.25–3.50	3.25–3.50

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

Domestic Gasoline Firm At Atlantic Ports

By Special Correspondent

NEW YORK, Jan. 31

BULK gasoline held firm all along the Atlantic seaboard last week regardless of the reports of weakness in the Mid-Continent markets. Refiners claim that they cannot lay California gasoline down here below 11½ cents a gallon, owing to the high tanker rates, and with the spring drawing near, there has been a marked improvement in the jobbing inquiry for forward deliveries.

Much of last week's buying was light, due to the unusually cold weather, but prices were firm and the prevailing price for U. S. Motor at New York harbor refineries was 12¼ cents a gallon, although it was reported that a Philadelphia refiner was offering at 12 cents. Considering the unfavorable weather and the reports of weakness in other markets, the jobbing demand was fully up to expectations. Refiners were selling at 13¼ cents a gallon in tankcars delivered to the nearby trade. Upstate buyers are operating more freely than anticipated.

Gasoline arrivals from the coast have fallen off a little. High tanker rates are impeding the movement. Tank wagon prices were firmly maintained. The Standard Oil Co. of New York advanced the price of gasoline 1 cent a gallon throughout New England early in the week, and this advance was met by the other leading marketers in that territory. On Friday the Tide Water Oil Co. advanced the gasoline tank wagon price 1 cent a gallon to 19 cents in New Jersey, Maryland and the District of Columbia. There were rumors current of an impending increase in the New York price but this failed to materialize. The Gulf gasoline market was soft. Jobbing demand was lighter but tank wagon prices were steady. Leading refiners were offering U. S. Motor gasoline at 10½ cents a gallon at the refineries and 11½ cents a gallon in tank cars delivered to the nearby trade.

Kerosene Markets

Bulk kerosene was lower along the Atlantic seaboard last week. Refiners report the demand from jobbers to be on the wane and no big lot buying was heard of. There was a fairly brisk spot business transacted but little or no interest was shown in forward deliveries. Water white 41-43 gravity was freely offered at 9 cents a gallon Atlantic seaboard terminals while the same price was quoted for 41-43 prime white.

Water white 43-45 gravity was cut ½ cent a gallon to 9¼ cents a gallon refinery and 10¼ cents a gallon in tank cars delivered to the trade by leading New York harbor refineries.

Tankwagon prices remained unchanged, although there were reports current of impending cuts in the New York market. Conditions in the Gulf market were less favorable from the refiner's standpoint. Jobbing demand lagged and water white 41-43 gravity was freely offered at 7½ cents a gallon with buyers showing very little interest at this price.

Gulf Lube Market Steady

HOUSTON, Jan. 29.—Gulf Coastal lubricant markets are unchanged from conditions prevailing over the last few weeks. Manufacturers generally are holding their prices firmly. Demand is described as satisfactory, the season considered, although movement is not brisk.

Market Section

Chicago Resale Market is Quiet; Weather Hampers Gasoline

Staff Special

CHICAGO, Jan. 29

THE Chicago resale market experienced another quiet week. Purchases were for small quantities only. Prices generally were firm and unchanged.

From several quarters, however, there were reports of improved gasoline demand. One refiner had increased sales through Illinois and Indiana, and another refiner reported a better volume of business into Ohio. One carload marketer reported the largest amount of business in any week since middle December.

Jobbers from northern states had no more favorable weather this week than last for consumption. Low temperatures with much snow on the ground prevailed until late in the week, temperatures rose.

The 58-60 U. S. Motor gasoline market continued at 8¾ to 9 cents. Two refiners were meeting 8¾-cent competition with 9 cents as their market but today one of these refiners reversed the order by saying his price was 8¾ cents and he was getting 9 cents on occasional sales. Several marketers were selling U. S. Motor at 8¾ cents. Quotations of 9½ cents were made on U. S. Motor by four refiners. It was reported here that U. S. Motor gasoline was moved into Ohio at 8½ cents, Group 3 freight basis, with large orders going at 8¼ cents, and 8⅝-cent quotations were made on Motor moving into lower Michigan points.

The 60-62 gravity gasoline prices were steady, 400 end point goods bringing 9¾ to 10 cents and the 437 end 9 to 9½ cents. The 64-66, 375 e. p. gasoline was fractionally lower at 10½ to 10¾ cents today, after opening the week at 10¾ cents flat and holding at 10⅝ to 10¾ cents in the middle of the week. The 68-70, 350-360 e. p. gasoline price was steady at 11⅛ to 11½ cents.

Kerosene was spotty with price of 41-43 water white steady at 5⅞ to 6 cents and the 42-44 at 6½ to 6¾ cents.

The feature this week in the furnace oil market was an inquiry for 500,000 gallons of 32-36 gas oil zero cold test circulated by a Chicago industrial for shipment of 50,000 to 60,000 gallons weekly. Cold weather in northern states had no effect on the market. Distillates and gas oils were offered more freely from the field, and jobbers were reported to have a goodly amount in storage. The 38-40 straw distillate price was 5⅛ to 5¼ cents this week and the 36-38 straw distillate was ⅛ cent lower. Gas oil, 32-36 straw with low cold test, brought 4¾ to 4⅞ cents, dark gas oil with low cold test was 4½ to 4⅝ cents, and higher cold test 4⅜ to 4½ cents.

Spot market for fuel oil was quiet. Varied reports have been made about the extent of industrial purchases for February needs; one refiner reported booking more business than usual for this time of year. On the other hand a marketer reported his customers had curtailed their orders approximately 30 per cent. Price of 18-22 fuel was $1.17½ to $1.20 over the week with some sales at $1.22½; 22-26 fuel was $1.20 to $1.25; 24-26 grade $1.25 to $1.30; 28-30 fuel low cold test $1.60 to $1.65, and Smackover $1.25 to $1.27½.

Variable temperatures are predicted for next week in the Chicago marketing territory, with cold in the fore part, rising during the middle, and colder again at the end of the week. Skies will be overcast, it is predicted, with occasional periods of precipitation.

Crude Price Changes

OIL CITY, Jan. 31.—On Jan. 31 Joseph Seep Purchasing Agency eliminated the light and medium classifications on Somerset, Ky. crude and posted the one price of $2.20 per barrel for all Somerset grade crude. This revision amounts to a reduction of 15 cents on Somerset light oil.

Somerset crude has been classified as light and medium since Oct. 11, 1920, upon which date a 25 cent differential in price was established. The differential has since been reduced to 20 cents and then to 15 cents, which it had been to date.

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Week's Price Changes Tank Wagon Market

Gasoline Changes

Standard of New Jersey—T.w. and s.s. prices gasoline advanced 1 cent, New Jersey, **Jan. 29.**

Standard of New York—T.w. and s.s. prices gasoline advanced 1 cent, Albany, **Jan. 27** and **Jan. 31.** Prices now are 21 cents t.w., and 23 cents, s.s.

Gasoline prices at Syracuse were advanced 1 cent, to 20 cents t.w., **Jan. 27.**

Gasoline prices advanced 1 cent, Buffalo and Rochester, to 19 cents t.w., **Jan. 28.**

Gasoline prices in New England generally were advanced 1 cent, **Jan. 26.**

Boston posted t.w. price became 21 cents, s.s. price 23 cents.

Atlantic Refining—T.w. and s.s. prices gasoline advanced 1 cent, through territory, **Jan. 31.**

Standard of Nebraska—T.w. and s.s. prices gasoline reduced 1 cent, Norfolk, to 18 cents and 20 cents respectively, **Jan. 20.**

Standard of Indiana—T.w. and s.s. prices of gasoline reduced 1.9 cents, greater Kansas City, to 18 cents and 20 cents respectively, including taxes, **Jan. 31.**

Kerosene Changes

Atlantic Refining—Kerosene reduced 1 cent, New Haven territory, to 17 cents t.w., **Jan. 21.**

Eastern and Central Kentucky Markets

ASHLAND AND LEXINGTON, Jan. 31.—Gasoline demand in eastern Kentucky refining district is rather slow. Kerosene, gas and fuel oil demand is good with output largely committed to those grades.

Fuel oil demand in central Kentucky market picked up during the past week. A few more jobbers have entered the gasoline market. Kerosene and gas oil demand has been fair.

Inasmuch as Kentucky refinery market quotations for Jan. 24 were omitted from the Jan. 26 issue of National Petroleum News, they are given below along with Jan. 31:

	Jan. 31	Jan. 24
EASTERN		
58-60 gasoline	11½	11⅜
60-62 gasoline	12	12⅛
64-66 gasoline	12½	12½
68-70 gasoline	13½	13½
41-43 w.w. kerosene	8	8
34-36 gas oil	6¼	6¼
24-26 fuel oil	5	4⅞
14-16 fuel oil	4½	4½
CENTRAL		
58-60 gasoline	10¾	10¾
41-43 w.w. kerosene	8¼	8¼
34-36 gas oil	6	6
23-25 fuel oil	5	5

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect Jan. 31, 1927

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
Atlantic City, N. J.	19	0	19	*	15
Newark, N. J.	19	0	19	21	15
Annapolis, Md.	18	2	20	*	15
Baltimore, Md.	18	2	20	23	10
Cumberland, Md.	18	2	20	23	15
Washington, D. C.	18	2	20	23	13
Danville, Va.	18	4½	22.5	*	15
Norfolk, Va.	18	4½	22.5	25.5	15
Richmond, Va.	18	4½	22.5	25.5	15
Roanoke, Va.	18	4½	22.5	25.5	15
Petersburg, Va.	18	4½	22.5	25.5	15
Williamsburg, Va.	18	4½	22.5	*	15
Charleston, W. Va.	18	3½	21.5	24.5	15
Clarksburg, W. Va.	18	3½	21.5	24.5	15
Keyser, W. Va.	18	3½	21.5	*	15
Parkersburg, W. Va.	18	3½	21.5	24.5	15
Wheeling, W. Va.	18	3½	21.5	24.5	15
Charlotte, N. C.	19	4	23	26	15
Hickory, N. C.	19	4	23	*	15
High Point, N. C.	19	4	23	*	15
Mt. Airy, N. C.	19	4	23	26	15
Salisbury, N. C.	19	4	23	26	15
Charleston, S. C.	19	5	24	27	15
Columbia, S. C.	19	5	24	27	15

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

*New York City	21	0	21	25	17
Albany, N. Y.	21	0	21	23	17
Buffalo, N. Y.	19	0	19	22	14
†Rochester, N. Y.	19	0	19	23	14
Syracuse, N. Y.	21	0	21	23	17
Boston, Mass.	21	0	21	23	15
Augusta, Me.	21	3	24	27	17
Manchester, N. H.	21	2	23	25	17
Burlington, Vt.	21	2	23	25	17

*In steel barrels.

†It is reported that S. O. New York is selling a second grade of gasoline at Rochester, 2c below the above posted prices which apply on its Socony grade

ATLANTIC REFINING

Pittsburgh, Pa.	19	*	19	*24	16
Philadelphia, Pa.	19	*	19	*24	16
Allentown, Pa.	19	*	19	*24	16
Erie, Pa.	19	*	19	*24	16
Scranton, Pa.	19	*	19	*24	16
Altoona, Pa.	19	*	19	*24	16
Dover, Del.	19	2	21	24	16
Wilmington, Del.	19	2	21	24	16
Providence, R. I.	20	1	21	23	18
Boston, Mass.	20	0	20	22	15
Springfield, Mass.	20	0	20	22	18
Worcester, Mass.	20	0	20	22	18
Hartford, Conn.	20	2	22	25	17
New Haven, Conn.	20	2	22	25	17

*2-cent state tax is collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	18	5	23	26	17
Louisville, Ky.	17	5	22	25	17
Covington, Ky.	18	5	23	26	17
Clarksdale, Miss.	16	4	20	23	14.5
Gulfport, Miss.	††17.5	4	††21.5	24.5	15
Jackson, Miss.	16	4	20	23	15.5
Natchez, Miss.	15.5	4	19.5	22.5	15
Vicksburg, Miss.	15.5	4	19.5	22.5	15
Birmingham, Ala.	18	4	22	25	17.5
Mobile, Ala.	16	4	20	24	16
Montgomery, Ala.	*19	4	23	26	*18.5
Atlanta, Ga.	†16	3½	20	23	18
Augusta, Ga.	†16	3½	20	23	17
Macon, Ga.	†16	3½	20	23	18
Savannah, Ga.	†16	3½	20	22	16
Jacksonville, Fla.	14	4	18	21	16
Miami, Fla.	16	4	20	23	17.5
Tampa, Fla.	14	4	18	21	16
Pensacola	**15	4	**19	22	16.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include special Sea Wall tax of 2c.

S. O. INDIANA

	Gasoline T.W.	Tax	**Total T.W.	S.S.	Oil T.W.
Chicago, Ill.	17	0	17	19	13
Decatur, Ill.	17.2	0	17.2	19.2	13.6
E. St. Louis, Ill.	16.1	0	16.1	18.35	12.7
Joliet, Ill.	17.4	0	17.4	19.4	13.8
Peoria, Ill.	17.2	0	17.2	19.2	13.6
Quincy, Ill.	17.2	0	17.2	19.2	13.4
Indianapolis, Ind.	17.2	3	20.2	22.2	14.2
Evansville, Ind.	17	3	20	22	1
South Bend, Ind.	17.4	3	20.4	22.4	14.4
Detroit, Mich.	17.8	2	19.8	21.8	14.7
Grand Rapids, Mich.	17.7	2	19.7	21.7	14.6
Saginaw, Mich.	17.9	2	19.9	21.9	14.8
Green Bay, Wis.	17.6	2	19.6	21.6	13.4
Madison, Wis.	17.3	2	19.3	21.3	13.1
Milwaukee, Wis.	17.1	2	19.1	21.1	12.9
La Crosse, Wis.	18.2	2	20.2	22.2	14
Minneapolis, Minn.	15.2	2	19.2	19.2	13.9
Duluth, Minn.	18.5	2	20.5	22.5	13.9
Mankato, Minn.	18.1	2	20.1	22.1	13.7
Des Moines, Iowa	16	2	18	20	13.5
Davenport, Iowa	17.5	2	19.5	21.5	13.5
Sioux City, Iowa	12.9	2	14.9	16.9	13.1
Mason City, Ia.	17.5	2	19.5	21.5	13.5
St. Louis, Mo.	*16.6	2	18.6	20.9	12.6
Kansas City, Mo.	†16	2	18	20	11.9
St. Joseph, Mo.	†17.5	2	19.5	21.5	12.5
Fargo, N. D.	19.9	2	21.9	23.9	15.9
Grand Forks, N. D.	20	2	22	24	16.2
Minot, N. D.	19.9	2	21.9	23.9	15.9
Pierre, S. D.	18.5	3	21.5	23.5	14.9
Huron, S. D.	18.5	3	21.5	23.5	14.9
Wichita, Kans.	15.8	2	17.8	19.8	11.8
Bartlesville, Okla.	15.8	3	18.8	20.8	11.8

**Dumps of 50 gallons or more, 1c discount through territory, except in Chicago where 1c discount applies on dumps of 100 gallons or more.

*Includes city tax of ½c.

†Includes city tax of 1c.

S. O. NEBRASKA

Omaha, Neb.	14.25	2	16.25	20.25	13.25
McCook	18.75	2	20.75	22.75	14.75
Norfolk	16	2	18	20	13.75
North Platte	18.75	2	20.75	22.75	14.5
Scottsbluff	18.25	2	20.25	22.25	14

CONTINENTAL OIL

Denver, Colo.	18	2	20	21	15.5
Pueblo, Colo.	15	2	17	19	15.5
Grand Junction, Colo.	21.5	2	23.5	25.5	19
Casper, Wyo.	18	2½	20.5	22.5	14
Cheyenne, Wyo.	19	2½	21.5	23.5	15.5
Butte, Mont.	19	3	22	22	19
Helena, Mont.	22	3	25	27	19
Salt Lake City, Utah.	20.5	3½	24	26	17
Boise, Ida.	22.5	3	25.5	27.5	19
Twin Falls, Ida.	22.5	3	25.5	27.5	19
Albuquerque, N. M.	20	3	23	26	18

S. O. CALIFORNIA

Phoenix, Ariz.	19	3	22	25	21.5
Los Angeles, Cal.	13.5	2	15.5	18.5	15.5
Fresno, Cal.	14	2	16	19	16.5
San Francisco, Cal.	14	2	16	19	15.5
Rono, Nev.	18	4	22	25	19
Portland, Ore.	14	3	17	20	16.5
Seattle, Wash.	14	2	16	19	16.5
Spokane, Wash.	18	2	20	23	20.5
Tacoma, Wash.	14	2	16	19	16.5

S. O. LOUISIANA

Little Rock, Ark.	15	4	19	22	13
Alexandria, La.	15	2	17	20	†15
Baton Rouge, La.	14	2	16	19	†13.5
Lake Charles, La.	15.5	2	17.5	20.5	†15
New Orleans, La.	*15.5	2	17.5	20.5	†15
Shreveport, La.	14	2	16	19	†14
Lafayette, La.	15	2	17	20	†14.5
Bristol, Tenn.	17.5	3	20.5	23.5	15.5
Chattanooga, Tenn.	17.5	3	20.5	23.5	13.5
Knoxville, Tenn.	17.5	3	20.5	23.5	16
Nashville, Tenn.	16	3	19	22	16
Memphis, Tenn.	15	3	18	21	15

*Includes 1c parish tax on gasoline.

†Kerosene prices in Louisiana include 1c state tax.

S. O. OHIO

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
All Ohio points	19	2	21	23	17

MAGNOLIA PETROLEUM

Muskogee, Okla.	15	3	18	21	11
Oklahoma City	15	3	18	21	13
Tulsa, Okla.	15	3	18	21	13
Fort Smith, Ark.	15	4	19	22	13
Little Rock, Ark.	15	4	19	22	13
Texarkana, Ark.	†19	4	†*23	†*23	15
Dallas, Tex.	†16	1	†17	†17	15
Fort Worth, Tex.	††14	1	††15	††15	13
Houston, Tex.	†18	1	†19	†19	15
San Antonio, Tex.	†16	1	†17	†17	14
El Paso, Tex.	**18	1	**19	**19	16

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

†3c per gal. discount to dealers.

**2c per gal. discount to dealers at El Paso.

††1c per gal. discount to dealers at Forth Worth.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

	Oleum Spirits	V.M. & P. Naphtha	Cleaner Naphtha
Chicago	18	20	20
Detroit	19.7	21.7	21.7
Kansas City	18.2	20.2	20.2
Milwaukee	18.7	*22.7	*22.7
Minneapolis	*22	*24	*24
St. Louis	17.9	19.9	19.9
New York	..	21	....

*Includes 2c state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

ONTARIO

	Gasoline T.W.	Tax	Total T.W.	S.S.	Oil T.W.
Toronto	24.5	3	27.5	31	24
Ottawa	24.5	3	27.5	31	24
Cochrane	31.5	3	34.5	40	29
Ft. William	25.5	3	28.5	32	26.5

MANITOBA

Winnipeg	27.5	3	30.5	34	26.5

SASKATCHEWAN

Regina	30.5	0	30.5	35	29.5

ALBERTA

Edmonton	29.5	2	31.5	35	28.5
Calgary	27.5	2	29.5	33	26.5

BRITISH COLUMBIA

Vancouver	22	3	25	29	23

QUEBEC

Montreal	24.5	3	27.5	31	24
Quebec City	26.5	3	29.5	33	26
Three Rivers	26.5	3	29.5	33	26

NEW BRUNSWICK

St. John	27.5	3	30.5	35	27
Moncton	27.5	3	30.5	35	27

NOVA SCOTIA

Halifax	27.5	3	30.5	35	27
Sydney	29.5	3	32.5	37	29

PRINCE EDWARD ISLAND

Charlottetown	27.5	3	30.5	34	27

Note: In districts surrounding these points 1c additional is added to city price.

Export Gasoline Stronger on East Coast, Easier on Gulf; Bunker Oil Strong

By Special Correspondent
NEW YORK, Jan. 31

GASOLINE was stronger along the Atlantic seaboard but easier in the Gulf markets. Export buyers are keeping in closer touch with the markets but are still holding off. Kerosene was lower both at New York and the Gulf, due to the hand-to-mouth domestic and export buying.

One of the bright spots was the strength in bunker oil. On Thursday the Sinclair Consolidated Oil Corp. advanced bunker oil 10 cents a barrel at Philadelphia. The prevailing price at that port is now $1.85 a barrel. The New York market is strong with rumors current of an impending advance.

Export buying of Pennsylvania lubricating oils was more active and prices were firm. Foreign buyers are beginning to anticipate spring requirements. Scale waxes were steady but refined grades slumped. Gas oil was easy.

Export Gasoline—New York

Bulk gasoline for export was firmer last week, and the majority of leading refiners were asking 12¼ cents a gallon for U. S. Motor in bulk at the refineries. Agents with foreign connections apparently did not have instructions to buy and were awaiting developments. Most of the big foreign buyers, however, were keeping in close touch with the market. Competition among refiners was less keen.

No heavy export buying is looked for until the Gulf markets strengthen. There was an inquiry from the United Kingdom for 45,000 barrels of prime and water white kerosene in conjunction with U. S. Motor gasoline but this did not materialize and is still hanging fire. At Philadelphia the bulk U. S. Motor price was still quoted at 12 cents a gallon, terminal. Stocks of gasoline abroad are reported small, and as there has been comparatively little bulk buying the past few weeks, exporters feel that Continental marketers will be forced to enter the domestic markets soon. Cased gasoline prices were unchanged. The demand for cased goods has been slightly better and one of the leading refiners is reported to have sold 40,000 cases for February shipment to the Near East.

Export Gasoline—Gulf Ports

Bulk gasoline was easier at the Gulf ports last week. Export buying lagged and refiners were more inclined to shade prices than during the previous week. One of the leading Independent refiners was working on an inquiry for 50,000 barrels of U. S. Motor, 64-66 gravity 375-end point gasoline and prime and water white kerosene but this has not yet been consummated. The unsettled Mid-Continent markets have tended to discourage foreign buyers from entering the market.

On Saturday U. S. Motor was offered freely at 10½ cents a gallon; 60-62 gravity 400-end point at 11¼ cents; 61-63 gravity 390-end point at 11½ cents and 64-66 gravity 375-end point at 12½ cents a gallon. Cased gasoline was in better demand. A leading Independent refiner sold 35,000 cases of U. S. Motor and 64-66 gravity 375-end point gasoline for January-February shipment to the Orient while another closed a contract for 25,000 cases of Motor and 64-66 gravity gasoline for February-March shipment to Australasia. U. S. Motor was quoted at $2 a case and 64-66 gravity 375-end point at $2.25 a case, in cargo lots.

Export Kerosene—New York

Export demand for kerosene was below expectations and prices were a shade lower. There were a few export inquiries for small quantities of barreled kerosene for prompt shipment, but European requirements seem to be fairly well covered for the present and no bulk business developed. At New York harbor refineries 41-43 water white and 41-43 prime white were offered at 9 cents while 44 water white was offered at 9¼ cents a gallon, a reduction of ½-cent from the previous week.

Cased kerosene business was routine. There have been some large clearances against old contracts but most of the new business has been confined to 5000 and 10,000 case lots for January-February shipment to the Near East and the west coast of Africa. One of the leading Independent refiners is reported negotiating for 40,000 cases of prime and water white kerosene for February shipment to China.

Export Kerosene—Gulf Ports

Bulk and cased kerosene sagged last week. Only one bulk sale was reported. That was booked by a leading Independent refiner who sold it to a big British concern at 7½ cents for prime white and either 8¼ or 8½ cents for the water white. This order called for 40,000 barrels. Offerings of 44 water white were still scarce and the price was held at 9¼ cents. For 41-43 prime white the price was 7¾ cents while 41-43 water white was available at 8½ cents. Cased kerosene demand was more active. One of the leading Independents sold 35,000 cases of prime and water white for nearby shipment to the Far East. On Saturday prime white was quoted at $1.60 a case and water white at $1.70 a case, in cargo lots.

Lubricants—New York

Demand for lubricating oils was more active. Export and domestic buyers were in close contact with the Pennsylvania lube markets and prices held firm. A large part of the foreign buying was credited to French houses. One of the smaller refiners sold 500 barrels of Pennsylvania 600 s.r. in barrels, but the details were withheld. This oil is quoted at 20 cents a gallon, New York. Interest in bright stock is keener. Neutral oils were steadier. Paraffin oils were in light, spasmodic demand.

Lubricants—Gulf Ports

The condition of the Gulf market for zero cold test lubricating oils has undergone very little change the past few weeks, and most of the refiners are quoting the same prices as a week ago. Consumption is large but most of the European and domestic needs have been already covered. No bulk movements were reported. Stocks are not heavy, but about balance the demand. Most of the export buying last week was for lots of a few hundred barrels each.

Wax Market—New York

There was a slightly better demand for white crude scale wax last week, but interest in fully refined grades continued to lag and the amount of new business transacted was small. Most of the big exporters report very keen competition with Oriental wax on the Continent. European buyers are sitting back pending a further break in the market while domestic consumers are also holding off.

White crude scale 122-124 A.m.p. was marked up to 4⅝ cents a pound, compared with 4.55 cents the previous week while 124-126 A.m.p. was unchanged at 4⅝ cents. Yellow crude scale was a trifle easier at 5½ cents against 4⅝ cents the preceding week. Fully refined 123-125 A.m.p. was freely offered at 5 cents a pound.

Wax Market—Gulf Ports

Gulf refiners reported a continued slump in the export demand for the refined waxes and a slight improvement in the foreign request for scale waxes. The asking price for 124-126 white crude scale was marked up 5 points and is now held at 4.45 cents a pound, an advance of 5 points over the previous week. Semi-refined 124-126 A.m.p. was unchanged at 4½ cents a pound. United Kingdom buyers were inquiring more

actively but most of the sales reported were in lots of from 10 to 25 tons. Fully refined waxes were quoted as follows: 123-125 and 125-127 A.m.p. 4⅞ cents; 128-130 at 5 cents; 133-135 at 5⅝ cents and 135-137 at 6 cents a pound.

Bunker Oil—New York

Consumption of bunker oil is heavy. Deliveries on contract have been very large and the market was firmly established at $1.75 a barrel at the local refineries. The f.a.s. New York harbor price was steady at $1.81½ a barrel. Stocks on spot are moderate and about balance the routine, bunkering demand. Diesel oil consumption is fairly large but the general situation has not shown any change of consequence and the price is steady at $2.40 a barrel f.o.b. refineries.

Bunker Oil—Gulf Ports

There was a persistent, unconfirmed report current that a leading Independent refiner had booked an order for 50,000 barrels of grade C bunker oil for February shipment abroad. The market was firm and all of the big refiners were asking $1.65 a barrel for grade C at New Orleans, for bunkering purposes and $1.50 to $1.55 a barrel f.o.b. New Orleans, in cargo lots. At Tampico grade C for bunkering purposes was $1.55 to $1.60 a barrel including taxes while no cargo offerings were reported and the price was nominal at $1.50 a barrel. Heavy Panuco crude oil was nominal at $1.40 a barrel f.o.b. Tampico, taxes to be added.

Gas Oil—New York

Export demand for gas oil continued very disappointing last week and the tendency was easier, although refiners did not alter their quoted prices. Jobbing demand was disappointing while no export buying worth mentioning was heard of. Stocks of gas oil are large. Refiners are freely offering 36-40 in bulk at the refineries at 6¼ cents a gallon while 28-34 was dull and weak at 5¾ cents a gallon. Furnace oil 38-42 was softer at 7½ cents a gallon.

Gas Oil—Gulf Ports

It is understood that a bulk cargo of gas oil has been put through in a quiet way but details were lacking. European consumers have been following the market a little more closely the past few days. 26-28 translucent gas oil was offered at 5 cents a gallon while straw was also available at this figure. The asking price for 32 plus dark gas oil was 4⅞ cents a gallon. Jobbing demand for translucent gas oil was better than the previous week but still below expectations.

Petrolatums

Snow white petrolatum is in better export demand. Some of the larger buyers are showing a keener interest. Prices were steady. Lily white is moving more freely. Domestic consumption is gaining. Medicinal oils ruled quiet but steady.

Complete Export Markets

New York Export Market

GASOLINE	Jan. 31	Jan 24
U. S. Motor Tank cars Ref...	12½	12 12½
U. S. Motor cases	27.40	-27.40
California grade U. S. Motor F. O. B. N. Y. Cargoes	11½	11½-11¾
KEROSENE		
43-45 150 W.W.Tank cars Ref.	09¼	-09¾
41-43 Water White Bulk Ref...	09.	-09.
43-45 150 W.W.Cases	19.15	-19.15
42-44 110 S.W.Cases	18.65	-18.65
GAS OIL		
36-40, Bulk Refinery	-06¼	-06¼
28-34, Bulk Refinery	-05¾	-05¾
MEXICAN BUNKER OIL		
Grade C. f. o. b. ref. Bulk	-1.75	-1.75
Diesel Oil f. o. b. ref. Bulk	-2.40	-2.40

LUBRICATING OILS

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.)

1 inch Immersion Test; All Penna. Products

Bright Stock dark	43½	-43½
Filtered D 600	34½	-34½
Filtered E 600-Warren	28	-28
Unfiltered 600 s. r.	20	-20
Unfiltered 650 s. r.	24½	-24½
600 Flash s. r.	28	-28
630 Flash	38	-38½

KED PARAFFIN (Bbls.)

(Viscosity at 70)

300 vis.	No. 5 color	-19½	-19½
250 vis.	No. 5 color	-18	-18
475 Viscosity	No. 5 color	-23	-24

NEUTRAL OILS (Bbls.)

(Viscosity at 70)

200 vis.at F.Pale	No. 3 color	-39	-38
180 Pale	No. 3 color	-37	-36
150 Pale	No. 3 color	-35	-33

BLACK OIL (Bbls.)

25-30 cold test	13¼	-13¼
15 cold test	14¼	-14¼

MEDICINAL OILS

(Includes Price of Drums)
(Penna. Stocks)

	Jan. 31	Jan. 24
Domestic 875-.885 s. g.	- .85	- .85
Domestic 865-.870 s. g.	.75- .80	.75- .80
Russian 885-.890 s. g. 325-330 vis.	1.00-1.10	1.00-1.10

WAXES

(Penna. Stocks)
(In Cents per Pound, F. A. S. Carload Lots)

WHITE CRUDE SCALE (Shipped in Bbls.)

122-124 A. m. p.	- 4⅝	- 4⅝
124-126 A. m. p.	- 4⅝	-4.70

MATCH

105-108 A. m. p.	.05¾	.05¾

FULLY REFINED (Shipped in Burlap Bags)

123-125 A. m. p. Philadelphia.	-05	-05
125-127 A. m. p.	-05	-05
128-130 A. m. p.	-05¼	-05⅜
130-132 A. m. p.	-05½	-05½
133-135 A. m. p.	-06	-05⅝
135-137 A. m. p.	-06¼	-06⅛

YELLOW CRUDE SCALE

124-126 A. m. p.	.04½	-04⅝

PETROLATUMS

(Penna. Stocks)
Per Pound

Dark Green	01¾	01¾
Veterinary	03	03
Light Amber	03⅝	03⅝
Dark Amber	03¼	03¼
Cream	06	06
Lily White	07⅝	07⅝
Snow White	08⅝	08⅝

Gulf Export Market

GASOLINE
F. O. B. Seaboard
(Shipments of 20,000 Bbls. and over)

	Jan. 31	Jan. 24
U. S. Motor, Bulk	10½	-.10½
60-62 400 e. p. Bulk	11¼	-.11¼
61-63 390 e. p. Bulk	11½	-.11¾
64-66 375 e. p. Bulk	12½	-.12¾
U. S. Motor, Cases (cargo lots)	2.00	2.05
64-66 Cases (cargo lots)	2.20	2.25
KEROSENE		
Water White, 43-45 Bulk	09¼	-09¼
Prime White, 41-43 Bulk	07½	-08
Water White,cases(cargo lots)	1.70	1.80
Prime White,cases(cargo lots)	1.60	1.65
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, Bulk*	05	-05
32 plus. bulk, Dark	04⅞	-04⅞
Grade C, Bunker oil	1.65	-1.65
Cargoes	1.55	-1.55

*Translucent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS
F. O. B. Steamer Tampico

Heavy, Panuco crude Taxes to be added	nominal	1.60
Grade C, Bunker oil Taxes paid cargoes	nominal	nominal
Grade C, Bunker oil, F. O. B. Tampico, For Bunkering Purposes, taxes paid	1.55-1.60	1.55-1.60

SOUTH TEXAS
(Viscosity at 100° F; cold test 0)
(Tanker, F. O. B. Houston)

*LUBRICATING OILS	Jan. 31	Jan. 24
100 Vis. No. 2 Unfiltered Pale	08	08
150 Vis. No.2½Unfiltered Pale	10	10
200 Vis. No. 3 Unfiltered Pale	10½	10½
300 Vis. No. 3 Unfiltered Pale	12	12
500 Vis. No.3½ Unfiltered Pale	14	14
200 Vis. No.5½ Red Oil	09½	09½
300 Vis. No. 5½ Red Oil	10½	10½
500 Vis. No. 6 Red Oil	12	12

*These prices are entirely nominal owing to wide fluctuations.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles Gravity test on A. P. I. scale)

	Jan. 31	Jan. 24
Gasoline, U. S. Motor— 53°-55°	8½- 9	08½- 9
Gasoline, U. S. Motor— blends and special cuts	9½-11	9¼-10
Gas Oil, 30°—34° per bbl	$1.22½-1.30	1.30-1.35
Diesel Oil, 27°—plus per bbl	$1.00-1.15	1.00-1.15
Bunker Oil, 14°—18° bbls	$ .80-1.00	.80-1.00
Fuel Oil, 14°—18° per bbl	$ .80-1.00	.80-1.00
Kerosene, W. W. 38°—40° per gal., 125-150 flash test	.06 -06½	.05½- .06
Cased Goods		
Gasoline, U. S. Motor	$2.25-2.40	-2.25
Kerosene, W. W. 38°—40° per case, 125-150 flash	$1.50-1.60	$1.45-1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	Jan. 31	Jan. 24
U. S. Motor Gasoline, Tank Cars Delivered greater N.Y.	-13¼ 13	-13½
U. S. Motor Gasoline, Tank Cars Bayonne	-12¼ 12	-12½
U. S. Motor Tank Cars, *Atlantic Seaboard Terminals.	-12¼ 12	-12½
Kerosene, 44 150 W. W. Tank Cars de'd greater N.Y.	-10¼	-10¾
41-43, Bulk Ref. W. W.	-09	-09
Grade C Bunker f.o.b. N.Y. Ref	-1.75	-1.75
Diesel Oil f. o. b. Refinery	2.40	2.40
Gas Oil, 36-40, Bulk Refinery..	-06¼	-06¼
Gas Oil, 28-34, Bulk Refinery..	-05¾	-05¾
Furnace Oil, 38-42, Bulk, Refinery	-07½	-07½

*New York, Philadelphia, Portsmouth, Va. Charleston, S. C.

Crude Oil Prices, as Posted by Major

[EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District)	$3.40
Bradford District Oil in National Transit Lines (Bradford District)	3.40
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.30
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.30
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.25
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	3.10
Keister Grade in National Transit Lines (Butler Co.)	1.80
Cabell Grade in Eureka Pipe Lines (West Virginia)	2.10
Corning Grade in Buckeye Pipe Lines (Ohio)	2.25
Corning, O. heavy grade	2.15
*Somerset Oil in Cumberland Pipe Lines (Kentucky)	2.20
Ragland Grade in Cumberland Pipe Lines (Kentucky)	.95

*Somerset oil run prior to Oct, 1, 1922 takes price of 6 cents lower than above quotations.

(Posted by Stoll Oil Refining Co.)

Oil City Ky. oil in Stoll lines	$2.35

CENTRAL STATES FIELDS
Posted by Ohio Oil Co.

Wooster	$2.25	Plymouth	$1.63
Lima	2.21	WesternKentucky	1.83
Waterloo	1.35	*Canadian Petrolia	2.61
Indiana	1.98	*Oil Springs	2.68
Princeton	2.10	*Posted by Imperial Oil Ltd.	
Illinois	2.10		

OKLAHOMA, KANSAS And NORTH TEXAS

Prices of Prairie Oil & Gas Co.
(In Oklahoma, Kansas, North and East Central Texas)

* **Effective Nov. 17, 1296**

28-28.9	$1.50	34-34.9	$1.80
29-29.9	1.55	35-35.9	1.85
30-30.9	1.60	36-36.9	1.90
31-31.9	1.65	37-37.9	1.95
32-32.9	1.70	38-38.9	2.00
33-33.9	1.75	39-39.9	2.05
40-40.9	$2.10	47-47.9	$2.45
41-41.9	2.15	48-48.9	2.50
42-42.9	2.20	49-49.9	2.55
43-43.9	2.25	50-50.9	2.60
44-44.9	2.30	51-51.9	2.65
45-45.9	2.35	52 and above	2.70
46-46.9	2.40		

Above schedule met by Sinclair and Gulf on Nov. 17.

Humble Oil & Refining Co. Prices
(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

On Nov. 1, Humble first posted the price schedule adopted by Prairie on Nov. 17, except that Humble is paying 5c less for each degree of gravity on oil below 28°.

Mirando, Tex	$1.25

The Texas Co. posted same gravity and price schedule in Oklahoma, North, North Central and Central Texas on Nov. 5 as Humble, excepting it is paying $1.40 for all oil below 28° gravity in Texas fields.

Magnolia Petroleum Co.
(In Oklahoma, Kansas and North and East Central Texas)

Same grades and prices as posted by Prairie excepting that Magnolia is paying $1.30 for all oil below 28° gravity, effective Nov. 2.

Corsicana heavy	$1.25
Iatan, Tex	1.50

Carter Oil Co.
(Oklahoma and Kansas)

On Nov. 2, Carter posted same gravity and price schedule as Prairie is now maintaining.

PANHANDLE, TEXAS
Humble Oil & Refining Co.

Hutchinson, and Carson Counties			$1.25
Gray County:		Wheeler County:	
28-28.9	$1.00	28-28.9	$ .90
29-29.9	1.05	29-29.9	.95
30-30.9	1.10	30-30.9	1.00
31-31.9	1.15	31-31.9	1.05
32-32.9	1.20	32-32.9	1.10
33-33.9	1.25	33-33.9	1.15
34-34.9	1.30	34-34.9	1.20
35-35.9	1.35	35-35.9	1.25
36-36.9	1.40	36-36.9	1.30
37-37.9	1.45	37-37.9	1.35
38-38.9	1.50	38-38.9	1.40
39-39.9	1.55	39-39.9	1.45
40-40.9	1.60	40-40.9	1.50
41-41.9	1.65	41-41.9	1.55
42-42.9	1.70	42-42.9	1.60
43-43.9	1.75	43-43.9	1.65
44 and above	1.80	44 and above	1.70

Magnolia Petroleum Co. posted flat price of $1.25 for all Panhandle Crude on Sept. 22, and Kay County Gas Co. on Oct. 4.

WEST TEXAS
(Crane, Upton and Crockett Counties)
Humble Oil & Refg. and Kay County Gas Co.

Below 26	$ .80	31-31.9	$1.10
26-26.9	.85	32-32.9	1.15
27-27.9	.90	33-33.9	1.20
28-28.9	.95	34-34.9	1.25
29-29.9	1.00	35-35.9	1.30
30-30.9	1.05	36 and above	1.35

NORTH LOUISIANA—ARKANSAS FIELDS
***Prices of Standard Oil Co. of Louisiana**
Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton and De Soto
Effective Nov. 4

Below 28	$1.40	40-40.9	$2.10
28-28.9	1.50	41-41.9	2.15
29-29.9	1.55	42-42.9	2.20
30-30.9	1.60	43-43.9	2.25
31-31.9	1.65	44-44.9	2.30
32-32.9	1.70	45-45.9	2.35
33-33.9	1.75	46-46.9	2.40
34-34.9	1.80	47-47.9	2.45
35-35.9	1.85	48-48.9	2.50
36-36.9	1.90	49-49.9	2.55
37-37.9	1.95	50-50.9	2.60
38-38.9	2.00	51-51.9	2.65
39-39.9	2.05	52 and above	2.70
Smackover, below 24			$1.10
" 24-24.9			1.35
" 25-25.9			1.40
" 26-26.9			1.45
" 27 and above			1.50
Bellevue			1.40
Cotton Valley			1.20
**Urania, La			1.10
†Calion (East El Dorado)			.95

*Gulf and La. Oil Refg. Corp. met S. O. La. prices on Nov. 4 and The Texas Co. and Magnolia Pet Co. met on Nov. 5.

**Posted by Louisiana Oil Refining Corp.

†Posted by Gulf.

STEPHENS, ARKANSAS
Posted by Atlantic Oil Producing Co. and Louisiana Oil Refining Corp.

Below 28	$1.30	29-29.9	$1.45
28-28.9	1.40	30 and above	1.50

GULF COASTAL and SPINDLETOP
Posted by Humble Oil & Refining Co.

Grades A	$1.40	29-29.9	$1.65
Grades B:		30-30.9	1.70
Below 25	1.40	31-31.9	1.75
25-25.9	1.45	32-32.9	1.80
26-26.9	1.50	33-33.9	1.85
27-27.9	1.55	34-34.9	1.90
28-28.9	1.60	35 and above	1.95

Fields classified as A and B are Goose Creek, Hull, Liberty, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

Magnolia Petroleum is paying same prices in Spindletop as Humble, except that its top grade is 31-31.9 at $1.75, effective Nov. 16.

Japanese Buy California Lubes For Canning in Orient

Staff Special

LOS ANGELES, Jan. 29

THE outstanding event in California marketing circles this week was the shipment of approximately 7000 barrels of California lubricating oil in a Japanese steamer to a Japanese firm by the Oil Export Co. of Los Angeles. The Japanese firm has a casing plant at Kobe where the oil will be cased and sold under a trade name. This is the first shipment on a contract that calls for monthly movements out of Los Angeles harbor throughout the year, each shipment to be approximately of the same volume as the first cargo.

The lubricating market has fallen ½ to 1 cent a gallon in the last month, due partly to slow business in this country, and partly to conditions in China. California looks to the Orient for much of its export lubricant business.

In the next year it is expected much of the Japanese demand for lubricants will be cared for by California refiners, because Japanese vessels make frequent stops at California ports. The Japanese navy is also buying much of its fuel oil from California refiners. Not much California low cold test lubricants are now being shipped to the Atlantic Coast because of competition offered by Gulf Coast refiners.

Tankers for gasoline are hardly obtainable even with charter rates ranging from $1.25 to $1.30 a barrel for either clean or dirty bottoms. Some refiners are asking 9 to 9½ cents for U. S. Motor, but this product can be bought in cargo lots for 8½ to 9 cents if the buyer furnishes his boats. In filling orders for cased gasoline, much of the demand is for 58 to 62 gravity, 400 to 437 end point. Naturally this product commands a higher price than California grade U. S. Motor.

The movement of fuel oil for export and for East Coast points is rather encouraging, but because of heavy stocks on the West Coast prices are no stronger. Export quotations continue around 80 cents.

The kerosene market is quiet with no notable change in the last six months. Quotations range 6 to 7 cents, but some export orders have found bids as low as 5½ cents in bulk, but the low price can hardly be called the average market. Some refiners are asking 7½ cents in tank car lots.

Los Angeles Harbor exported during 1926, a total of 34,367,009 barrels of all petroleum products in bulk, according to the marine department of the Los Angeles Chamber of Commerce. These figures do not include the movement to Atlantic domestic points, but do include the movement to Alaska, Mexico and Panama, C. Z. The annual bulk movement in barrels was divided as follows: fuel, 20,177,434; gasoline, 5,375,437; crude, 5,016, 754; kerosene, 2,603,930; Diesel, 672,725; tops, 215,790; distillates, 284,343; lubes, 20,596 barrels.

Purchasers, in All Fields (in Effect, Jan. 31, 1927)

GULF COASTAL and SPINDLETOP
Prices of The Texas Co.

Grades A	$1.40	•Grades B	$1.40
‡Grades B (light crude):			
35-35.9	$1.95	38-38.9	$2.10
36-36.9	2.00	39-39.9	2.15
37-37.9	2.05	40 and above	2.20

•Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on all below 35° is same as Humble's postings on Grades B.

ROCKY MOUNTAIN FIELDS
Prices of Ohio Oil Co. and Midwest Refining Co.

‡Salt Creek	29-29.9	$1.55
" "	30-30.9	1.60
" "	31-31.9	1.65
" "	32-32.9	1.70
" "	33-33.9	1.75
" "	34-34.9	1.80
" "	35-35.9	1.85
" "	36-36.9	1.90
" "	37 and above	1.95
Elk Basin		2.00
Grass Creek light		2.00
Big Muddy		$1.85
Lance Creek		2.00
Rock Creek		1.85
Mule Creek		1.45
Rex Lake		1.25
‡Osage		2.00
‡Cat Creek, Mont		2.00
Sunburst, Mont		1.35
‡Hogback, N. Mex		2.45
Artesia, N. Mex		1.65

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA
Standard Oil Co. of California

Santa Maria and Ventura Posted by Union Oil Co.

Gravity	Signal Hill Huntington Beach	Inglewood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	$1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	.....	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....	.....	.....
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....	.....	.....
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....	.....	.....
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....	.....	.....
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....	.....	.....
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....	.....	.....
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....	.....	.....

•Union Oil Co. also purchases Long Beach Crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	Jan. 31	Jan. 24
Soda Ash light 58% bags.cwt.	$1.32½	$1.32½
Silicate of Soda 60 deg. drums.....cwt.	-$1.65	-$1.65
Sal Soda wks.....	.90- 1.10	.90- 1.10
Caustic Soda 76% solid..cwt.	- 3.00	- 3.00
Chloride of Lime.....cwt. works.....	- 2.00	- 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point.....per ton	10.50–11.00	10.50–11.00
Liquid Chlorine tank cars works.....lb.	- .04	- .04

Compounders' Supplies (Open Market)

Vegetable Oils—		
Linseed carloads spot....lb.	10.7	10.7
March.....	10.7	10.7
Tanks, spot.....	10.0	09.9
•Soya Bean Tanks, Coast.lb.	09½	09½
Castor Oil—		
No. 1 Carlots, Bbls.....	-.13½	-.13½
No. 3 Carlots, Bbls.....	-.13	-.13
Animal Oils—		
English Degras.....	-.05½	-.05½
Domestic Degras, bbls., carloads.....lb.	-.04½	-.04½
•Horse.....lb.	-.08	-.08
Oleic Acid—		
Dist. Bbls.....lb.	.09½-.09¾	.09½-.09¾
Saponified Bbls.....lb.	.09¾-.10	.09¾-.10
Lard Oils—		
Prime		
Winter Strained. to 1½ffa.	.40-45c.t.lb. .15¾	.14⅞
Extra Winter Strained. 2 to 4½ffa.	.40-45c.t.lb. .13¾	.13¾
Extra..... 4 to 5 ffa.	.40-45c.t.lb. .12¼	.12¼
Extra No.1. 7 to 10 ffa.	.40-50c.t.lb. .10¾	.10¾
No. 1.....15 to 18 ffa.	.40-45c.t.lb. .10½	.10½
No. 2.....22 to 23 ffa.	.40-45c.t.lb. .10	.10
Prime Edible Tallow under 1⅛ffa.	40-45c.t.N.Y.....lb. -.08½	-.08½
Tallow acidless.....lb.	-.10¼	-.10¼
Lard Stearine.....lb.	-.16	-.16
Oleo Stearine.....lb.	-.09¾	-.09½
Neatsfoot Oil—		
Pure.....bbls.-lb.	.12¾	.12¾
Extra.....do lb.	.10¾	.10¾
No. 1.....bbls.-lb.	.10½	.10½
Cold pressed.....lb.	.16¼	.15¾
Fish Oils—		
Menhaden Oil		
Light pressed.....gal.	-.58	-.58
White.....gal.	-.63	-.63
Yellow bleached.....gal.	-.61	-.61
•Herring tank cars coast.....gal.	nominal	-.42
Whale, extra winter bleached.....gal.	-.82	-.82
Naval Stores—		
Turpentine, N. Y.....gal.	-.81	-.80
Turpentine†.....gal.	-.75	-.73¾
Rosin, B. N. Y.....bbl.	12.75	12.50
Rosin, F. N. Y.....bbl.	12.90	12.90
Rosin, B†.....bbl.	11.00	11.00
Rosin, F†.....bbl.	11.20	11.40
Rosin Oil 1st run.....gal.	.67	.67
Rosin Oil 2nd run.....gal.	.72	.72
Pine Tar—		
Kiln Burnt.....bbl.	16.00	16.00
Retort.....bbl.	16.00	16.00
Alcohol—Denatured—		
Formula 5		
Bbls.....gal.	-42	-42
Drums.....gal.	-35	-35

†Savannah, Ga., market.
•Nominal.

OIL STOCKS AND FINANCES

National Petroleum News

Cumberland Pipe Line To Pay $33 Extra

CLEVELAND, Jan. 31.—Net profits of Cumberland pipe line company in 1926 fell only a little below the 1925 earnings, the annual statement shows, being $12.25 and $11.93, respectively. Operating income was slightly higher than in 1925 although runs of crude were more than 250,000 barrels less in 1926 than in 1925.

Cumberland like several others of the old easern pipe line companies has carried a large investment in quick assets, pending adjustment of federal income and other taxes. The federal taxes have been adjusted and paid up to 1925 so directors have approved disposition of part of these assets and the payment of an extra dividend of $33 a share on the $100 stock March 15 to stock of Feb. 28 record. Because disposition of part of the investment means a reduction in income, the regular quarterly dividend was reduced at the directors' meeting in Oil City last week from $3 to $2 a quarter.

Among the investments of Cumberland were $200,000 U. S. Treasury notes; $2,050,000 4¼ per cent Liberty bonds, and $450,000 U. S. Land bank farm loan 4½ per cent bonds.

Runs of the company, which serves the Kentucky oil fields, in the last three years have been: 1924, 4,207,880 barrels; 1925, 3,565,662, and 1926, 3,307,120.

"Unless new pools are discovered or the company secures a larger per cent of the business in the territory in which we are operating, we must expect a still further decrease in our oil run and in our income," Forrest M. Towl, president, reported to directors.

Income accounts of Cumberland for the last two years compare:

	1926	1925
Operating income ..	$237,802	$236,590
Other income	120,276	130,961
Total income	$358,078	$367,551
Surplus adjust.	32,888	61,763
Adj. other acc'ts ..	.....	146,466
Net profit	$390,966	$575,780
Dividends	360,000	360,000
Surplus	$ 30,966	$215,780

Balance sheets as of Dec. 31, 1926, and 1925 compare:

Assets

	1926	1925
Plant	$4,661,416	$4,659,709
Other investments..	2,711,689	2,660,470
Acc'ts receivable..	320,362	167,081
Cash	158,488	310,966
Total	$7,851,955	$7,798,226

Liabilities

Capital stock	$3,000,000	$3,000,000
Depreciation resv.	2,947,527	2,791,495
Acc'ts payable	323,277	456,546
Surplus	1,581,151	1,550,185
Total	$7,851,955	$7,798,226

Carib's Board Altered As Control Shifts

NEW YORK, Jan. 28.—J. R. Rubin was reelected president of Carib Syndicate and E. D. Shafer secretary and treasurer. New vice-presidents elected are Marshall Pask, Pask-Wallbridge, New York, and G. G. Goffe, Chase National bank, New York.

The directorate was readjusted at the annual meeting Jan. 25 when a new group came into control. Three new directors were elected, three chosen to fill vacancies, and five reelected. Directors reelected are: Mr. Rubin, A. H. Gross, William M. Schaill, Holland S. Reavis and Mr. Shafer.

New directors are: Ernest Stauffer, Jr., vice-president, New York Trust Co.; R. A. Halliday, Halliday & Co., broker; R. C. Stanley, president, International Nickel Co.; John W. Doty, chairman, Foundation Co.; Charles Hayden, Hayden Stone & Co., and A. G. Bunker, president, Vanadium Steel Co.

Mr. Rubin announced the company would vigorously exploit its properties and denied reports that it would merge with the Maracaibo Oil Exploration Co.

Atlantic Refining Co.—Amount of 4½ per cent notes outstanding has been reduced to $2,900,000. Original issue in July, 1924, amounted to $15,000,000.

White Eagle Increases Profits in 1926

CLEVELAND, Jan. 31.—White Eagle Oil & Refining Co. increased its net profits in 1926 to $3.78 each on the 490,000 no par shares outstanding. The 1925 net was $2.99 a share. Net sales increased from $16,483,518 in 1925 to $19,218,501 in 1926.

Balance sheet of Dec. 31, 1926, shows net working capital of $3,437,767 compared with $4,309,508 at the end of 1925.

White Eagle's income accounts for the last two years compare:

	1926	1925
Net sales	$19,218,501	$16,483,518
Expenses, etc.	15,661,864	13,343,372
Operat'g profit	$ 3,556,637	$ 3,140,146
Miscel. charges ..	412,601	388,532
Deprec. deplet. ..	1,177,316	1,120,754
U. S. income taxes	115,000	164,000
Net profits	$ 1,851,720	$ 1,466,860
Dividends	980,000	965,000
Surplus	$ 871,720	$ 501,860

Balance sheets of Dec. 31, 1926 and 1925, compare:

ASSETS

	1926	1925
Cash	$ 832,570	$ 1,378,455
Notes, acc'ts rec.	1,597,506	1,197,947
Inventories	2,968,000	2,817,183
Investments	158,123	208,572
Fixed assets	24,165,620	20,978,139
Deferred charges	143,685	185,265
Total	$29,865,503	$26,766,561

LIABILITIES

Notes, acct's payable	$ 1,750,741	$ 1,004,449
Other accruals ..	209,568	80,628
Deferred notes pay	486,221	172,417
5½% 5-year notes	2,000,000	2,400,000
Deprec., deplt. res.	10,357,178	8,838,597
Other reserves ..	354,791	185,262
Capital stock, surplus	14,707,004	14,085,208
Total	$29,865,503	$26,766,561

Financial Notes

Solar Refining Co.—Following directors elected at annual meeting at Lima, O.: F. T. Cuthbert, J. R. Cuthbert, J. M. Cory, H. O. Bentley, H. A. Graham, E. L. Hughes, and S. M. Williams. Officers subsequently elected are: F. T. Cuthbert, president; J. R. Cuthbert, vice-president; E. L. Hughes, vice-president and treasurer, and H. A. Graham, secretary.

Amerada Corp.—Preliminary statement of earnings for 1926 places net at $4,915,000 after all expenses and charges including federal taxes. This amount is equivalent to $6.03 a share on stock outstanding Dec. 31 or $6.66 a share on average amount outstanding during year. The 1925 net was $4.24 a share on volume of stock issued Dec. 31, 1925.

Cleveland Stock Market

Jan. 28

	Par	Bid	Asked	Last Sale
Canfield Oil Co.	$100	.....	.....	110
do pfd.	100	.....	100	100
Fred G. Clark Co.	10	.....	.....	3¼
National Refining Co.	25	.....	39¾	40
do pfd.	100	130	.....	130
Paragon Refining Co.	25	.....	7¼	7
do pfd.	100	66½	72	70

xEx-dividend

OIL DIVIDENDS

	Amt.	Payable	Stock of Record
Cities Service m.	½%	Mar. 1	Feb. 15
do stock m.	½%	Mar. 1	Feb. 15
do pfd. m.	½%	Mar. 1	Feb. 15
do pref. B m.	½%	Mar. 1	Feb. 15
Cumberland P. L. q.	$2	Mar. 15	Feb. 28
do extra	$33	Mar. 15	Feb. 28
Imperial Oil q.	25c	Mar. 1	.....
do extra	12½c	Mar. 1	.....
Independent O & G q.	25c	Apr. 18	Mar. 31
Pure Oil q.	37½c	Mar. 1	Feb. 10
do extra	12½c	Mar. 1	Feb. 10
Texas Pacific C & O q.	15c	Mar. 31	Mar. 10
Union Tank Car q.	$1.25	Mar. 1	Feb. 10

Transactions In Oil Shares on New York Stock Exchange

1925 High	1925 Low	1926 High	1926 Low	Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Jan. 27 Sales	First	H'gh	Low	Last	Ch'ge
.....	.....	32⅞	24¼	(sh) 814,800	N.P.	Amerada Corp.	50cQ	Jan. 31, 27	15,300	34½	* 35¼	33⅛	35⅛	+ ¾
79¾	48	74	39⅞	(sh) 200,000	N.P.	American Republics	.....	.....	200	45	48	45	48	+7¼
47¼	32	59½	44¾	$ 56,000,000	$ 25	Associated Oil	50cQ	Dec. 24, 26	500	48¾	49½	48¾	49½	0
117½	95½	128⅜	97	50,000,000	100	Atlantic Refining	.....	June 16, 24	9,400	112⅜	112⅜	107	109	—3⅛
117¾	113½	120	115⅛	20,000,000	100	do pfd	$1¾Q	Feb. 1, 27	500	116⅛	116⅛	115¾	115¾	— ⅝
33½	18¾	33⅛	23¾	25,000,000	25	Barnsdall Corp. A	50cQ	Jan. 3, 27	21,500	31¼	31½	30⅛	31½	— ¾
30	16	29½	22½	3,713,275	25	do B	50cQ	Jan. 3, 27	2,300	28½	28⅞	28	28⅞	+ ½
34⅜	23⅞	38⅛	29¾	$ 47,594,950	$ 25	California Petroleum	50cQ	Dec. 1, 26	8,600	31½	31½	31	31⅛	— ⅛
70	42½	94½	50	23,631,200	100	General Asphalt	.....	.....	41,600	82½	83	77½	80½	+1⅛
109	86½	140⅜	94⅞	7,354,000	100	do pfd	$1¾Q	Dec. 1, 26	400	122	123	120	120	—6
85	59	72	50¼	25,000,000	100	Houston Oil	.....	.....	7,700	66⅛	71⅝	65⅞	69½	— ¼
41¾	13½	34	19⅝	(sh) 500,000	N.P.	Independent Oil & Gas	25cQ	Jan. 17, 27	17,900	31½	31½	29¼	30¼	—1⅜
14¼	5½	13⅜	7¾	$ 3,283,960	$ 10	Indian Refining	.....	Dec. 15, 20	1,900	8	8½	7⅜	8	— ¼
12⅝	6	12½	7½	4,546,490	10	do ctfs	.....	.....	200	7⅞	7⅞	7⅞	7⅞	+ ¼
110	77	104	90	2,296,400	100	do pfd	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
1½	¼	¾	¼	1,644,760	10	Kansas & Gulf	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	24½	19⅛	(sh) 4,000,000	N.P.	Lago Oil & Transport	.....	.....	700	20½	21½	20½	21⅜	— ½
23¾	13⅜	19⅞	12	(sh) 1,134,238	N.P.	Louisiana Oil Refining	.....	.....	19,600	16	17	15⅞	16¼	+ ¼
.....	.....	97	93	$ 4,000,000	$100	do pfd	$1⅜Q	Nov. 15, 26	200	96⅜	96⅜	96¼	96¼	+ ¼
35½	20⅜	28⅞	16½	(sh) 330,000	N.P.	Maracaibo Oi	.....	.....	2,400	20⅛	20½	19½	20½	— ¾
60½	32⅝	63⅜	49¼	(sh) 2,349,763	N.P.	Marland Oil Co	$1Q	Dec. 31, 26	43,700	57⅜	57⅝	55½	56⅝	— ¾
250	225	.....	.....	45,942,800	$100	Mexican Petroleum	$3Q	Jan. 20, 27	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	12,000,000	100	do pfd	$2Q	Jan. 20, 27	.....	.....	.....	.....	.....	.....
22½	29	13¾	6	(sh) 945,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	4,300	7¼	7¼	6⅞	6⅞	— ½
38	25¾	37	27½	(sh) 1,357,800	N.P.	Mid-Continent Petroleum	.....	Aug. 1, 23	50,400	38¾	38¾	36¼	37⅞	— ⅝
94¼	83	104¼	90	$ 6,718,000	$100	do pfd	$1¾Q	Dec. 1, 26	.....	.....	.....	.....	.....	.....
3¼	⅝	2½	¾	25,415,540	10	Middle States	.....	July 1, 23	29,800	2¼	2½	1⅞	2⅛	0
1½	1½	1¼	½	4,384,680	.....	do ctfs	.....	.....	2,900	1½	1½	1⅛	1⅛	— ⅛
78½	51⅝	83¼	1	(sh) 3,500,000	N.P.	Pacific Oil	.....	Jan. 20, 26	2,600	1⅝	1⅜	1⅝	1⅝	0
83⅞	59½	76½	56⅛	$ 48,307,400	$ 50	Pan American P. & T.	$1.50Q	Jan. 20, 27	1,700	64¼	64¼	61½	61⅞	—2⅛
84½	60⅛	78⅜	56⅞	91,246,000	50	do B	$1.50Q	Jan. 20, 27	25,200	64⅝	64⅞	62½	63¼	—1⅜
49¾	37¼	46	30	(sh) 400,000	N.P.	Pan American Western B	50cQ	Jan. 30, 27	4,000	37⅞	37⅞	35⅛	36	—1⅜
6¼	2¼	32	4½	(sh) 198,770	N.P.	Panhandle P. & R	.....	.....	3,600	16	16¼	15⅛	15⅛	—1⅜
60½	37	99⅜	51	$ 2,935,200	$100	do pfd	.....	July 2, 23	100	77½	77½	77½	77½	—2¾
47⅜	36¼	57⅜	40	(sh) 2,406,736	N.P.	Phillips Petroleum	75cQ	Jan. 1, 27	47,200	56⅞	56⅞	55¼	56	— ⅝
3½	1¼	1⅞	½	$ 29,622,925	$ 25	Pierce Oil Corp	.....	.....	2,700	¾	¾	⅝	¾	+ ⅛
40	20¾	27⅛	11⅜	15,000,000	100	do pfd	.....	Feb. 1, 22	1,700	17¾	17¾	15⅛	15⅜	—1⅜
8¼	4½	7	2½	(sh) 2,500,000	N.P.	Pierce Petroleum	.....	.....	7,400	3¾	3⅞	3⅝	3¾	+ ⅛
32⅜	12½	20⅞	11	$ 11,467,850	$ 50	Producers & Refiners	.....	Sept. 15, 23	82,700	21¾	26¼	21½	24	+3
47⅜	27	41¾	30¾	2,845,350	50	do pfd	.....	May 1, 25	4,245	40⅝	47	40	45	+4⅝
33¾	25⅛	31	25¼	75,959,250	25	Pure Oil Co	37½cQ	Dec. 1, 26	21,300	28¾	28⅝	28	28½	— ⅛
108½	103	112¾	106	18,000,000	100	do 8% pfd	$2Q	Jan. 1, 27	300	112	112⅜	112	112⅛	0
57⅜	48¼	57⅜	47⅜	(sh) 659,082	13.40	Royal Dutch, N. Y. shares	$1.83¼	Jan. 28, 27	2,600	51	51⅜	50½	51	— ½
49	39½	48⅝	40¾	(sh) 87,685	£2	Shell Transport & T	96.7c	Jan. 17, 27	700	45⅜	45⅜	45⅛	45⅛	— ⅜
28⅜	21⅝	30⅞	24	(sh) 10,000,000	N.P.	Shell Union Oil	35cQ	Dec. 31, 26	18,500	30⅜	30⅜	30⅛	30⅜	+ ⅛
106½	99½	114	103	$ 18,350,400	$100	do pfd	$1½Q	Nov. 15, 26	200	107½	107½	x107⅛	107½	+ ½
28½	17¾	28⅝	15⅛	7,208,080	10	Simms Petroleum	50cS.A.	Jan. 3, 27	11,300	21⅝	21¾	20⅜	20⅞	— ¾
24⅞	17	24⅞	16¾	(sh) 4,500,632	N.P.	Sinclair Consolidated	.....	May 31, 24	33,500	21¼	21¼	20⅛	20½	— ¾
94⅛	78¾	99½	90	$ 17,528,300	$100	do pfd	$2Q	Nov. 15, 26	2,300	101⅞	102	101⅛	102	+ ⅛
32⅛	21¾	36⅞	26⅝	27,393,090	25	Skelly Oil Co	50cQ	Dec. 15, 26	12,000	35½	35½	34¼	34¾	— ¾
.....	.....	63¾	52⅝	(sh) 13,016,434	N.P.	S. O. California	50cQ	Dec. 15, 26	7,900	59⅛	59¼	58⅜	58¾	— ½
47½	38⅜	46⅜	37½	517,064,800	25	S. O. New Jersey	25cQ	Dec. 15, 26	28,800	38⅛	38⅞	37⅞	38⅜	— ⅜
119	116¼	119⅛	115	199,972,900	100	do pfd	$1¾Q	Dec. 15, 26	1,900	116	116	116	116	0
.....	.....	33¼	32½	421,750,400	25	S. O. New York	40cQ	Dec. 15, 26	20,300	33⅛	33¼	32½	32¾	— ⅜
43⅞	38⅛	41⅝	30⅛	(sh) 1,171,951	N.P.	Sun Oil	25cQ	Dec. 15, 26	700	34½	34½	33⅛	33⅛	—1⅜
6⅛	2	5¼	1	(sh) 1,121,368	N.P.	Superior Oil Corp	.....	Dec. 20, 20	17,500	5	5⅛	4¾	4⅞	— ¼
55	42¾	58	48	$ 88,092,200	$ 25	The Texas Co	75cQ	Dec. 30, 26	8,200	57¼	57⅝	55½	55⅞	—1¾
.....	.....	57⅞	53½	28,599,300	25	The Texas Corp	75cQ	Jan. 1, 27	18,100	57	57⅛	55⅞	56¼	— ¾
23⅜	10⅞	19½	12	8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 26	33,600	15⅝	16¼	14⅛	15⅛	— ¾
36⅞	30¼	39¼	27	(sh) 2,138,543	N.P.	Tide Water Oil Co	37½c	Dec. 31, 26	800	28	28	27½	27½	—1
101	99	103	87¼	$ 20,705,100	$100	do 5% pfd	$1.25Q	Nov. 15, 26	300	89	89	89	89	— ½
5⅞	3½	5½	3	(sh) 3,742,029	N.P.	Transcontinental Oil	.....	.....	29,400	4¾	4⅞	4¼	4½	— ¼
43⅜	38	58⅜	37¼	$ 40,668,950	$ 25	Union Oil of California	50cQ	Nov. 10, 26	16,500	54½	55	53	53⅜	— ⅞
134	96¼	120	80	24,423,300	100	Union Tank Car Co	$1¼Q	Dec. 1, 26	700	96¾	97	96¾	97	— ¾
117⅛	113¼	118	113¼	12,000,000	100	do pfd	$1¾Q	Dec. 1, 26	.....	.....	.....	.....	.....	.....
31¾	25½	29¼	25⅛	(sh) 490,000	N.P.	White Eagle Oil & Refining	50cQ	Jan. 20, 27	1,400	26⅛	26½	26	26	— ⅜

*New High †New Low xEx-Dividend Total Sales 753,945

PITTSBURGH STOCK EXCHANGE

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Jan. 28 Sales	First	High	Low	Last	Ch'ge
.....	.....	8½	6⅝	N.P.	Andes Petroleum	.....	.....	.....	.....	.....	.....
8¼	5¼	8½	5¾	$10	Arkansas Nat. Gas	1,095	7⅝	7⅝	7¼	7¼	— ⅜
.....	.....	90½	79¾	$100	Columbia Gas (w.i.)	110	88	88	85⅜	85⅜	+ ⅜
.....	.....	.....	.....	....	do rts	1,825	3¼	3¼	3	3	.....
.....	.....	101⅜	95	$100	do pfd w.i	93	100½	100½	100	100	—1
18	14½	17	12½	$10	Devonian Oil	90	14½	14½	14⅜	14⅜	— ⅜
112⅝	105⅛	116½	112	$100	Duquesne Lt. 7% pfd.	.....	.....	.....	.....	.....	.....
.....	.....	10	5⅛	N.P.	Houston Gulf Gas	800	6½	6¾	6½	6¾	+ ¼
.....	.....	46	39	25	Lone Star Gas Corp	14,066	41⅞	42	37¼	39	—3
37¼	31	47⅜	33⅛	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	47½	42	....	do ctfs. of deposit	.....	.....	.....	.....	.....	.....
.....	.....	6¾	5	....	Ohio Oil & Gas	100	6	6	6	6	— ⅛
34	26	34	21	25	Oklahoma Nat. Gas	.....	.....	.....	.....	.....	.....
.....	.....	21	19¼	....	do ctfs. of deposit	1,586	20¾	†22	20¾	21¼	+ ¾
8¼	5	5⅝	3⅛	5	Pittsburgh O. & G	.....	.....	.....	.....	.....	.....
9⅝	6	10	7½	10	Salt Creek Cons	205	7¾	7⅞	7¾	7¾	— ⅛
13¾	8½	27	8	10	Tidal Osage	1,010	23¾	23¾	22	22	—1⅞
.....	.....	45	40	N.P.	Waverly Oil Wks."A"	100	42½	42½	42½	42½	+ ½

PITTSBURGH CURB MARKET

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Jan. 28 Sales	First	High	Low	Last	Ch'ge
2½	.60	3⅜	2½	$5	Colombia Synd	.....	.....	.....	.....	.....	.....
.60	.15	.20	.06	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
9	5½	22	22	10	Forest Oil	.....	.....	.....	.....	.....	.....
32⅝	64	91½	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	....	Herbert Oil	.....	.....	.....	.....	.....	.....
.....	.....	79	79	100	Houston Gulf pfd	.....	.....	.....	.....	.....	.....
12½	3¼	12	7½	N.P.	Leonard Oil & Dvlp	100	9	9	9	9	— ¼
.....	.....	1⅝	1⅜	N.P.	Mountain & Gulf	.....	.....	.....	.....	.....	.....
.....	.....	30¼	29	....	Oklahoma Gas	.....	.....	.....	.....	.....	.....
.47	.20	2	.15	10	Omar O. & G	23,500	2.35	2.70	2.05	2.10	—.25
.....	.....	2	1¾	5	Pittsburgh Oil Dev	.....	.....	.....	.....	.....	.....
27½	25	33½	20	10	Plymouth Oil	700	26¾	26¾	26½	26¾	— ¼
7	3	7	3	5	States Oil	.....	.....	.....	.....	.....	.....
4	1⅞	3½	2	$1	Texon Oil & Land	1,600	2⅞	2⅞	2¾	2¾	— ⅛
.....	9	25¾	8	10	TidalOsage(non-voting)	.....	.....	.....	.....	.....	.....

*New High †New Low xEx-Dividend ‡Ex-Rights

Cities Service Profits Grow

NEW YORK, Jan. 29.—Net earnings of Cities Service Co. for 1926 were the largest in its history, amounting before federal taxes to $21,804,272, compared with $16,736,930 in 1925. Net earnings of Cities Service for December amounted to $2,430,293 before federal taxes compared with $1,495,401 in December 1925.

National Refining Co.—All directors and officers reelected. Frank B. Fretter, president, said 1926 was best year company had had in three years.

Cities Service Co.—Announcement made that offering of 250,000 shares of $20 common stock last week was oversubscribed. The offering did not increase the amount of outstanding stock except as was represented by conversions of debentures.

Texas Pacific Coal & Oil Co.—Quarterly dividend of 15 cents a share declared payable March 31 to stock of March 10 record. Company paid 25 cents a share before dividends were suspended in the third quarter of 1923. Present rate is 6 per cent on $10 stock.

Standard Oil Stock Traded in New York

1925 High	1925 Low	1926 High	1926 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Jan. 28 Sales	First	High	Low	Last	Ch'ge
26⅝	17¼	21	16¾	£ 4,000,000	£1	Anglo American	60¾cS.A.	May 27, 26	900	20⅜	20⅝	20¼	20⅝	— ⅛
.....	.....	20¼	16½	.....	£1	do ctfs no -votg	.....	.....	500	19½	19⅞	19½	19⅞	— ⅛
.....	.....	19	19	.....	.....	do voting ctfs	.....	.....	.....	.....	.....	.....	.....	.....
4¼	1⅜	2¼	¾	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	100	1¼	1¼	1¼	1¼	0
12⅜	3	5	3⅛	$ 10,000,000	$ 10	do pfd	.....	.....	300	3⅝	3⅝	3½	3½	— ¾
240	205	301	226	1,000,000	100	Borne Scrymser	$4S.A.	Oct. 15, 26	150	65	65	65	65	0
.....	.....	70	49	.....	.....	do new	.....	.....	.....	.....	.....	.....	.....	.....
72	53½	59½	42	10,000,000	50	Buckeye Pipe Line	$1Q	Dec. 15, 26	300	46⅞	47	45	45	—2
74	48½	82½	65	3,000,000	25	Chesebrough Mfg	75cQ	Dec. 28, 26	200	81	81	80½	80½	—1¼
115	110	.....	.....	1,000,000	100	do pfd	$1¾Q	Sept. 30, 26	.....	.....	.....	.....	.....	.....
31½	21⅞	25⅞	17⅝	34,914,280	10	Co ntinental Oil	25cQ	Dec. 15, 26	18,400	22	22	20⅝	20⅝	—1½
17½	10	17	13½	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	.....	.....	.....	.....	.....	.....
156	132	137	102	3,000,000	100	Cumberland Pipe Line	$3Q	Dec. 15, 26	40	110	112	110	112	+3½
96	61	63¾	43	5,000,000	100	Eureka Pipe Line	$1Q	Feb. 1, 27	100	48½	48½	48½	48½	— ½
68½	23½	32½	9⅞	16,000,000	100	Galena Signal Oil	.....	June 30, 25	1,600	12½	13	12⅜	12⅜	+ ⅜
105	88	94½	35	4,000,000	100	do new pfd	.....	June 30, 26	80	45½	47½	45½	45½	—2½
114	95	97½	45	2,000,000	100	do old pfd	.....	June 30, 26	30	50	50	50	50	+2
95	42¼	68¼	52	72,916,650	25	Humble Oil & Refining	30cQ	Jan. 1, 27	9,200	61¾	61¾	58⅛	58¼	—3⅝
154½	127	144½	125¼	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 15, 26	450	127¾	128½	127¼	127¼	— ¾
39¼	27¼	39¾	31½	(sh) 6,491,852	N.P.	Imperial of Canada	25cQ	Dec. 1, 26	27,900	40⅞	42⅜	39	39⅜	—1½
84	57⅜	70	54¼	$ 5,000,000	50	Indiana Pipe Line	$1Q	Nov. 15, 26	150	61½	63	61½	63	+1
35⅜	22⅛	35¼	28¾	(sh) 7,118,138	N.P.	International Petroleum	25c	Nov. 15, 26	27,000	33⅛	33¼	32⅛	32⅜	—1
25⅝	16½	20⅝	12½	$ 6,362,500	$12½	National Transit	25cQ	Dec. 15, 26	1,100	13⅞	13⅞	13⅝	13⅞	0
79	49¼	51½	27⅛	5,000,000	100	New York Transit	.....	July 15, 26	300	31½	31½	31½	31½	— ¼
88	67½	80½	64	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 27	300	72½	73	72½	73	— ½
75¼	60¼	67⅜	55¾	60,000,000	25	Ohio Oil Co	50cQ	Dec. 15, 26	3,500	61	61⅛	60⅛	60⅛	—1⅛
44½	19	24¾	15	10,000,000	25	Penn Mex Fuel	.....	May 21, 25	200	19	19	18	18	+ ¼
65½	45⅞	60¼	48	60,000,000	25	Prairie Oil & Gas	50cQ	Nov. 30, 26	15,300	55	55	52¾	52½	—2½
129¾	106	137½	122¼	81,000,000	100	Prairie Pipe Line	$2Q	Jan. 31, 27	750	135	135	133¼	134½	— ½
254	200	220	184½	4,000,000	100	Solar Refining Co	$5S.A.	Dec. 20, 26	70	197	200	197	197	+1
103	63	74½	21	10,000,000	100	Southern Pipe Line Co	.....	Mar. 1, 26	100	25¼	25¼	25¼	25¼	+ ¼
47½	45	50	34½	20,000,000	25	South Penn Oil Co	50cQ	Dec. 31, 26	400	40	40	38⅛	38⅛	—1
84	50	56½	49	3,500,000	100	South West Pa. Pipe Line	$1Q	Dec. 31, 26	.....	.....	.....	.....	.....	.....
70¾	59½	70½	60½	$ 223,756,258	$ 25	S. O. Indiana	62½cQ	Dec. 15, 26	71,200	72⅜	72¾	69¾	70⅛	—2⅛
46	30⅛	36½	16½	8,000,000	25	S. O. Kansas	.....	June 16, 24	600	20¼	20½	19¼	19¼	—1⅝
137	114¾	134⅝	108	16,864,434	25	S. O. Kentucky	$1Q	Dec. 31, 26	1,100	120¾	121	118¼	119¼	—2⅜
.....	.....	51⅛	42	4,518,000	25	S. O. Nebraska	62cQ	Dec. 20, 26	600	48⅞	48⅞	48¼	48¼	— ⅛
.....	.....	.....	.....	.....	.....	S. O. N. J. w. i	.....	.....	1,600	38¾	38¾	37⅜	37⅜	—1⅛
369	338	365	288	14,000,000	100	S. O. Ohio	$2½Q	Jan. 1, 27	300	341	346	338	341	+1
123	116	122	117	7,000,000	100	do pfd	$1¾Q	Dec. 1, 26	10	117¼	117¼	x117¼	117¼	—2¾
27	12	23	15	1,722,931	25	Swan-Finch Co	.....	Nov. 1, 19	100	15	15	15	15	0
109½	80⅛	112	90¼	61,919,950	25	Vacuum Oil Co	50cQ	Dec. 20, 26	6,500	102	102	98	98	—3½

NEW YORK CURB BONDS

Week Ending Jan. 28

	High	Low	Last	Ch'ge
Beacon Serv. 6s '36	102¾	102⅛	102⅛	— ⅛
Cal. Pet. 5s	97¼	96¾	97	— ⅛
Cities Serv. 6s '66	100	99	100	+ ⅛
Cities Serv. 7s "D" '66	125	124¾	125	+ ¾
Galena S O 7s '30	91½	91	91	+ ⅞
General Pet. 6s '28	101½	101¼	101⅜	0
Gulf Oil Penn 5s	100⅜	100⅜	100⅜	0
Gulf Oil 5s '37	100⅜	100¼	100¼	— ⅜
Indepen. Oil 6½s '31	102	101¾	102	0
Pan Amer. Pet. 6s '40	100½	100	100	— ¼
Pure Oil 6½s '38	103½	103¼	103⅜	+ ⅛
Richfield Oil 6s wi '41	99	99	99	0
S. O. N. Y. 4½s '51	97⅞	97⅝	97¾	— ⅛
S. O. N. Y. 6½s '33	105¼	105	105	— ¼
Sun Oil 5½s '39	100¼	100	100	— ¼
Trans. Cont. Oil 7s '30	99⅜	99	99⅛	0
United Oil Prod. 8s '31	70	63¼	70	+ ¼
Valvoline 7s '37	105	105	105	0

NEW YORK BONDS

Week Ending Jan. 28

	High	Low	Last	Ch'ge
Amer. Rep. Deb. 6s	99⅛	99	99	— ½
Assoc. Oil gold 6s	102¾	102¼	102¾	0
Atlantic Refg. deb. 5s	101¾	101⅛	101¾	— ⅛
Barnsdall Corp. sf 6s	104½	103½	104⅜	— ⅛
Barnsdall Corp. 6s ex war.	93¾	93¼	93¾	+ ¼
Cal. Petrol. sf 6½s	103¾	103½	103½	0
Cal. Petrol Cor. 5½s	10.5⅝	100¾	101	— ⅜
Empire Gas & Fuel 7½s	108	106¼	108	+1¾
Empire Gas & Fuel 6½s	106	103½	106	+2
Gen. Asphalt 6s	107	107	107	0
Gen. Petroleum 5s	101⅝	101	101¼	— ¼
Humble Oil & Refg. 5½s	102½	102⅛	102½	+ ¼
Mid-Cont. Pet. 6½s	105⅛	104⅞	105	+ ⅛
Pan-Amer. P & T 7s	105⅜	105¼	105¼	0
Pan-Amer. P & T 6s	105½	105	105	— ½
Simms Pet. cvt. 6s	104	103	103½	— ¾
Sinclair Con. Oil Col. 7s	102½	100½	101⅛	— ⅜
Sinclair Con. Oil Con. 6½s	101⅛	99	100	+1
Sinclair Con. Oil 6s	101½	99½	100¾	—1
Sinclair Crude Oil 6s	101⅛	100¾	100¾	— ¼
Sinclair Pipe Line sf 5s	95⅜	94⅜	94⅝	0
Standard Oil N. J. deb. 5s	102½	102	102¼	— ¼
Superior Oil 7s	101¼	101¼	101¼	+ ⅜
Union Oil of Cal. 6s-A	108⅞	108¾	108⅞	0
Union Oil of Cal. 5s-C	99¾	99½	99¾	— ½

South West Pennsylvania Pipe Lines and Southern Pipe Line Co.—All directors and officers re-elected. E. W. Ziegler appointed assistant secretary and assistant treasurer of both companies, a new post.

New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Jan. 28 Sales	First	High	Low	Last	Ch'ge
11½	2½	14½	4	$ 5	Amer. Maracaibo	27,200	6¼	6¼	5¼	5¼	—1
8⅜	5	8⅜	5¾	$ 10	Arkansas Nat. Gas	600	7¾	7¾	7½	7⅝	— ⅛
.....	.....	19⅜	14⅛	N.P.	Beacon Oil	4,500	18⅞	18⅞	18⅛	18⅛	— ⅞
47½	38	83½	82	$ 25	British-American	1,500	20⅞	22½	20⅞	22	+1
10¼	2¾	28⅜	9¼	25c	Carib. Syndicate	9,500	25	25¼	24	24⅛	— ⅞
43	35	51	37½	$ 20	Cities Service	42,100	52⅜	54⅜	52⅜	54¼	+2⅞
85⅛	80¼	92½	82⅜	100	do pfd	9,400	91¼	91¾	91¼	91⅜	+ ⅜
8	7¼	8⅜	7⅜	10	do pfd. B	200	8⅛	8⅛	8⅛	8⅛	— ⅛
21⅜	17½	25¼	19	10	do bankers' sh	300	26½	27	26½	27	+1½
2¾	.60	3½	1¾	N.P.	Colombia Syndicate	135,500	3¼	3 7/16	3	3 1/16	— 1/16
15	8¼	16	10	N.P.	Creole Syndicate	29,200	14¾	14¾	13⅜	14	— ¾
12¼	5	7⅜	1⅛	N.P.	Crown Central	2,400	2¾	2¾	2½	2½	— ½
7	2	4	1 1/16	N.P.	Derby Oil & Ref	.....	.....	.....	.....	.....	.....
27	10½	19	13	N.P.	do pfd	100	10½	10½	10½	10½	0
.....	.....	2¼	.60	.....	Euclid Oil	.....	.....	.....	.....	.....	.....
6	1⅜	7½	2½	N.P.	Gibson Oil	31,900	3¼	3¼	2⅞	3	— ⅛
3⅜	1⅛	2	.63	N.P.	Gilliland v.t.c	400	1⅛	1⅛	1⅛	1⅛	+ ⅛
98¼	63½	98	82	$ 25	Gulf Oil Corp	3,800	95	95	94⅛	94¼	— ¾
5⅞	2¼	4	1	N.P.	Kirby Petroleum	7,500	1½	2¼	1½	2¼	+ ⅜
13	6	12¼	5¾	N.P.	Leonard Oil & Dev	6,400	9¼	9¼	8¾	8⅞	+ ⅜
25⅞	18	27	20	N.P.	Lion Oil Refining	7,100	25¼	26½	24⅝	26½	+1⅛
.....	.....	46	31½	$ 25	Lone Star Gas	2,300	41	41	37	37	+5
4¼	1¾	3⅜	1½	N.P.	Marland of Mexico	100	2	2	2	2	0
5¾	.56	5½	1⅞	$ 10	Mexican-Panuco	8,400	2¾	2¾	2¼	2¼	— ½
2	1	1¾	1¼	1	Mountain & Gulf	100	1½	1½	1½	1½	0
26¼	18⅜	26	22½	10	Mountain Prod	4,600	26⅜	26¾	25½	25½	—1¼
6¾	3⅝	6¾	5	5	New Bradford	1,600	5¾	5¾	5½	5½	— ⅜
24¾	16¼	11¾	2	10	New England Fuel	.....	.....	.....	.....	.....	.....
19⅜	6¼	17	9⅛	1	New Mex. & Ariz	2,300	12⅛	12⅛	11¼	11⅝	— ⅜
12½	8¼	17	8	25	New York Oil	100	9¼	9¼	9¼	9¼	— ⅜
37	14	36	34¼	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	9⅞	6	N.P.	Pandem	3,000	8⅛	8⅛	7¼	7¼	0
2½	.90	2¾	.20	N.P.	Peer Oil Corp	.....	.....	.....	.....	.....	.....
28¼	16	22¾	12	$ 10	Pennok Oil	200	12¾	12¾	12¾	12¾	— ¼
44½	16	38	14⅛	25	Red Bank Oil	1,300	22¼	23	19	19	—5
33½	19	28¾	12	N.P.	Reiter-Foster	1,000	13¼	13¼	13	13	— ¼
.....	.....	27½	22	$ 25	Richfield Oil wi	.....	.....	.....	.....	.....	.....
9½	3½	7½	4½	N.P.	Ryan Consolidated	500	6⅜	6⅜	6¼	6¼	— ¼
9¾	6⅛	10	7½	$ 10	Salt Creek Cons	400	7¾	7¾	7¾	7¾	— ¼
35	24	36	26⅞	10	Salt Creek Prod	3,900	31⅜	31⅜	30½	30⅝	— ⅛
3⅞	1	4⅜	1⅛	5	Savoy Oil	2,100	3¼	6¾	3¼	6⅜	+2⅞
13⅜	9	27	7⅝	10	Tidal Osage	1,300	23¾	23¾	21	21	—2½
10⅞	8	25¾	8¼	10	do non-voting	2,600	20¾	21	19⅝	20	— ¾
.....	.....	27	20⅞	N.P.	Tide Water Assoc	8,400	23½	23¼	22⅜	22⅜	— ½
.....	.....	99¼	93¾	100	do pfd	2,900	95½	95½	94⅜	94⅜	— ⅛
4⅞	1¾	8	4¼	5	Venezuelan Pet	7,300	6¾	6¾	6⅝	6⅝	— ⅛
.....	.....	29¾	23½	N.P.	Warner-Quinlan	300	25¾	25¾	25½	25½	0
31¼	22⅛	36⅛	22	N.P.	Wilcox O. & G. new	13,900	32	32⅝	30⅛	30⅛	—1¾
7	3⅞	9½	4⅜	$ 1	Woodley Petroleum	100	7⅜	7⅜	7⅜	7⅜	— ⅜

*New High †New Low xEx-Dividend